

Necessary and sufficient conditions for the existence of solution of generalized fuzzy relation equations $A \Leftrightarrow X = B$

Turunen, E., 1 Oct 2020, In : Information Sciences. 536, p. 351-357 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

On the zeros of the partial Hosoya polynomial of graphs

Ghorbani, M., Dehmer, M., Cao, S., Feng, L., Tao, J. & Emmert-Streib, F., 1 Jul 2020, In : Information Sciences. 524, p. 199-215 17 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Studying the inertias of LCM matrices and revisiting the Bourque-Ligh conjecture

Haukkanen, P., Mattila, M. & Mäntysalo, J., 1 Apr 2020, In : Journal of Combinatorial Theory. Series A. 171, 105161.

Research output: Contribution to journal › Article › Scientific › peer-review

Computer-Generated Holograms for 3D Imaging: A Survey

Sahin, E., Stoykova, E., Mäkinen, J. & Gotchev, A., 2020, In : ACM Computing Surveys. 53, 2, 35 p., 32.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Densely-sampled light field reconstruction

Vagharshakyan, S., Bregovic, R. & Gotchev, A., 2020, *Real VR – Immersive Digital Reality*. Springer, p. 67-95 29 p. (Lecture Notes in Computer Science; vol. 11900).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Design and characterization of light field and holographic near-eye displays

Sahin, E., Mäkinen, J., Akpınar, U., Miyanishi, Y. & Gotchev, A., 2020, *Real VR – Immersive Digital Reality*. Springer, p. 244-271 28 p. (Lecture Notes in Computer Science; vol. 11900).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Game-theoretic semantics for ATL^+ with applications to model checking

Goranko, V., Kuusisto, A. & Rönholm, R., 2020, In : Information and Computation. 23 p., 104554.

Research output: Contribution to journal › Article › Scientific › peer-review

Learning and Teaching Experiences with a Persuasive Social Robot in Primary School – Findings and Implications from a 4-Month Field Study

Ahtinen, A. & Kaipainen, K., 2020, *Persuasive Technology. Designing for Future Change - 15th International Conference on Persuasive Technology, PERSUASIVE 2020, Proceedings*. Gram-Hansen, S. B., Jonassen, T. S. & Midden, C. (eds.). Springer, p. 73-84 12 p. (Lecture Notes in Computer Science; vol. 12064).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

PRBS-based loop gain identification and output impedance shaping in DC microgrid power converters

Khodamoradi, A., Liu, G., Mattavelli, P., Messo, T. & Abedini, H., 2020, In : Mathematics and Computers in Simulation. 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Remarks on the Design of First Digital Computers in Japan - Contributions of Yasuo Komamiya

Stanković, R. S., Sasao, T., Astola, J. T. & Yamada, A., 2020, *Computer Aided Systems Theory – EUROCAST 2019 - 17th International Conference, Revised Selected Papers*. Moreno-Díaz, R., Quesada-Arencibia, A. & Pichler, F. (eds.). Springer, p. 123-130 8 p. (Lecture Notes in Computer Science; vol. 12013).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Tile priorities in adaptive 360-degree video streaming

Curcio, I. D. D., Monakhov, D., Hourunranta, A. & Aksu, E. B., 2020, *Smart Multimedia - 2nd International Conference, ICSM 2019, Revised Selected Papers*. McDaniel, T., Berretti, S., Curcio, I. D. D. & Basu, A. (eds.). Springer, p. 212-223 12 p. (Lecture Notes in Computer Science; vol. 12015 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Vehicle Attribute Recognition by Appearance: Computer Vision Methods for Vehicle Type, Make and Model Classification

Ni, X. & Huttunen, H., 2020, In : Journal of Signal Processing Systems.

Research output: Contribution to journal › Article › Scientific › peer-review

Programming languages for data-intensive HPC applications: A systematic mapping study

Amaral, V., Norberto, B., Goulão, M., Aldinucci, M., Benkner, S., Bracciali, A., Carreira, P., Celms, E., Correia, L., Grelck, C., Karatza, H., Kessler, C., Kilpatrick, P., Martiniano, H., Mavridis, I., Pillana, S., Respício, A., Simão, J., Veiga, L. & Visa, A., 8 Nov 2019, In : Parallel Computing. 91, 17 p., 102584.

Research output: Contribution to journal › Article › Scientific › peer-review

Satisfiability of modal inclusion logic: Lax and strict semantics

Hella, L., Kuusisto, A., Meier, A. & Vollmer, H., 1 Oct 2019, In : ACM TRANSACTIONS ON COMPUTATIONAL LOGIC. 21, 1, 7.

Research output: Contribution to journal › Article › Scientific › peer-review

Model checking and validity in propositional and modal inclusion logics

Hella, L., Kuusisto, A., Meier, A. & Virtema, J., 1 Sep 2019, In : JOURNAL OF LOGIC AND COMPUTATION. 29, 5, p. 605-630 26 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Hermitian normalized Laplacian matrix for directed networks

Yu, G., Dehmer, M., Emmert-Streib, F. & Jodlbauer, H., 1 Aug 2019, In : Information Sciences. 495, p. 175-184 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

High-performance SIMD implementation of the lattice-Boltzmann method on the Xeon Phi processor

Robertsén, F., Mattila, K. & Westerholm, J., 10 Jul 2019, In : Concurrency Computation. 31, 13, 16 p., e5072.

Research output: Contribution to journal › Article › Scientific › peer-review

Analysis of an efficient parallel implementation of active-set Newton algorithm

San Juan Sebastián, P., Virtanen, T., Garcia-Molla, V. M. & Vidal, A. M., Mar 2019, In : Journal of Supercomputing. 75, 3, p. 1298-1309 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Towards detecting structural branching and cyclicity in graphs: A polynomial-based approach

Dehmer, M., Chen, Z., Emmert-Streib, F., Mowshowitz, A., Shi, Y., Tripathi, S. & Zhang, Y., 1 Jan 2019, In : Information Sciences. 471, p. 19-28 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

ALMARVI System Solution for Image and Video Processing in Healthcare, Surveillance and Mobile Applications

Al-Ars, Z., van der Vlugt, S., Jääskeläinen, P. & van der Linden, F., Jan 2019, In : Journal of Signal Processing Systems. 91, 1, p. 1-7

Research output: Contribution to journal › Article › Scientific › peer-review

A fun-accuracy trade-off in game-based learning

Greipl, S., Ninaus, M., Bauer, D., Kiili, K. & Moeller, K., 2019, *Games and Learning Alliance - 7th International Conference, GALA 2018, Proceedings*. Söbke, H., Gentile, M. & Allegra, M. (eds.). Springer Verlag, p. 167-177 11 p. (Lecture Notes in Computer Science; vol. 11385).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Alternating-time temporal logic ATL with finitely bounded semantics

Goranko, V., Kuusisto, A. & Rönholm, R., 2019, In : Theoretical Computer Science.

Research output: Contribution to journal › Article › Scientific › peer-review

An Accurate Approximation of Resource Request Distributions in Millimeter Wave 3GPP New Radio Systems

Kovalchukov, R., Moltchanov, D., Gaidamaka, Y. & Bobrikova, E., 2019, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, Proceedings*. Galinina, O., Andreev, S., Koucheryavy, Y. & Balandin, S. (eds.). Springer Verlag, p. 572-585 14 p.

(Lecture Notes in Computer Science; vol. 11660).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Autonomous UAV Landing on a Moving Vessel: Localization Challenges and Implementation Framework

Castillo, C., Pyattaev, A., Villa, J., Masek, P., Moltchanov, D. & Ometov, A., 2019, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, Proceedings*. Galinina, O., Andreev, S., Koucheryavy, Y. & Balandin, S. (eds.). Springer Verlag, p. 342-354 13 p. (Lecture Notes in Computer Science; vol. 11660).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Characterizing the Degree of LTE Involvement in Supporting Session Continuity in Street Deployment of NR Systems

Begishev, V., Samuylov, A., Moltchanov, D. & Samouylov, K., 2019, *Distributed Computer and Communication Networks - 22nd International Conference, DCCN 2019, Revised Selected Papers*. Vishnevskiy, V. M., Kozyrev, D. V., Samouylov, K. E. & Kozyrev, D. V. (eds.). Springer, p. 71-83 13 p. (Lecture Notes in Computer Science; vol. 11965).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Communicating User Insights with Travel Mindsets and Experience Personas in Intra-city Bus Context

Hildén, E. & Väänänen, K., 2019, *Human-Computer Interaction – INTERACT 2019 - 17th IFIP TC 13 International Conference, Proceedings*. Lamas, D., Loizides, F., Nacke, L., Petrie, H., Winckler, M. & Zaphiris, P. (eds.). Springer Verlag, p. 34-52 19 p. (Lecture Notes in Computer Science; vol. 11749).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Digital Predistortion for 5G Small Cell: GPU Implementation and RF Measurements

Pascual Campo, P., Lampu, V., Meirhaeghe, A., Boutellier, J., Anttila, L. & Valkama, M., 2019, In : *Journal of Signal Processing Systems*. 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Emptiness problems for distributed automata

Kuusisto, A. & Reiter, F., 2019, In : *Information and Computation*. 104503.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluating multi-connectivity in 5G NR systems with mixture of unicast and multicast traffic

Kovalchukov, R., Moltchanov, D., Pyattaev, A. & Ometov, A., 2019, *Wired/Wireless Internet Communications - 17th IFIP WG 6.2 International Conference, WWIC 2019, Proceedings*. Di Felice, M., Natalizio, E., Bruno, R. & Kassler, A. (eds.). Springer Verlag, p. 118-128 11 p. (Lecture Notes in Computer Science; vol. 11618).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Extending a digital fraction game piece by piece with physical manipulatives

Kiili, K., Koskinen, A., Lindstedt, A. & Ninaus, M., 2019, *Games and Learning Alliance - 7th International Conference, GALA 2018, Proceedings*. Söbke, H., Gentile, M. & Allegra, M. (eds.). Springer Verlag, p. 157-166 10 p. (Lecture Notes in Computer Science; vol. 11385).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Graph-boosted attentive network for semantic body parsing

Wang, T. & Wang, H., 2019, *Artificial Neural Networks and Machine Learning – ICANN 2019: Image Processing - 28th International Conference on Artificial Neural Networks, 2019, Proceedings*. Tetko, I. V., Karpov, P., Theis, F. & Kurková, V. (eds.). Springer Verlag, p. 267-280 (Lecture Notes in Computer Science; vol. 11729).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Institutional Perspectives on the Process of Enterprise Architecture Adoption

Dang, D. & Pekkola, S., 2019, In : *Information Systems Frontiers*.

Research output: Contribution to journal › Article › Scientific › peer-review

Large-Scale Centralized Scheduling of Short-Range Wireless Links

Pyattaev, A. & Gerasimenko, M., 2019, *Distributed Computer and Communication Networks - 22nd International Conference, DCCN 2019, Revised Selected Papers*. Vishnevskiy, V. M., Kozyrev, D. V., Samouylov, K. E. & Kozyrev, D. V. (eds.). Springer, p. 607-615 9 p. (Lecture Notes in Computer Science; vol. 11965).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Learning Image-to-Image Translation Using Paired and Unpaired Training Samples

Tripathy, S., Kannala, J. & Rahtu, E., 2019, *Computer Vision - ACCV 2018 - 14th Asian Conference on Computer Vision, Revised Selected Papers*. Jawahar, C. V., Schindler, K., Mori, G. & Li, H. (eds.). Springer Verlag, p. 51-66 16 p. (Lecture Notes in Computer Science; vol. 11362).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Lifelong learning with a digital math game: Performance and basic experience differences across age

Greipl, S., Moeller, K., Kiili, K. & Ninaus, M., 2019, *Games and Learning Alliance- 8th International Conference, GALA 2019, Proceedings*. Liapis, A., Yannakakis, G. N., Gentile, M. & Ninaus, M. (eds.). Springer, p. 301-311 11 p. (Lecture Notes in Computer Science; vol. 11899).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Maximizing Achievable Data Rate in Unlicensed mmWave Networks with Mobile Clients

Chukhno, N., Chukhno, O., Shorgin, S., Samouylov, K., Galinina, O. & Gaidamaka, Y., 2019, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, Proceedings*. Galinina, O., Andreev, S., Koucheryavy, Y. & Balandin, S. (eds.). Springer Verlag, p. 282-294 13 p. (Lecture Notes in Computer Science; vol. 11660).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

MicroSCOPE: Enabling access control in searchable encryption with the use of attribute-based encryption and SGX

Michalás, A., Bakas, A., Dang, H. V. & Zalizko, A., 2019, *Secure IT Systems - 24th Nordic Conference, NordSec 2019, Proceedings*. Askarov, A., Hansen, R. R. & Rafnsson, W. (eds.). Springer, p. 254-270 17 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11875 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

MLAttack: Fooling Semantic Segmentation Networks by Multi-layer Attacks

Gupta, P. & Rahtu, E., 2019, *Pattern Recognition - 41st DAGM German Conference, DAGM GCPR 2019, Proceedings*. Fink, G. A., Frintrop, S. & Jiang, X. (eds.). Springer, p. 401-413 13 p. (Lecture Notes in Computer Science; vol. 11824 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Multi-level Architecture for P2P Services in Mobile Networks

Pirmagomedov, R., Ahmed, A. A. & Glushakov, R., 2019, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, Proceedings*. Galinina, O., Andreev, S., Koucheryavy, Y. & Balandin, S. (eds.). Springer Verlag, p. 415-423 9 p. (Lecture Notes in Computer Science; vol. 11660).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Near Lossless JPEG Compression Based on Masking Effect of Non-predictable Energy of Image Regions

Ponomarenko, M. & Egiazarian, K., 2019, *Image Analysis - 21st Scandinavian Conference, SCIA 2019, Proceedings*. Felsberg, M., Forssén, P-E., Unger, J. & Sintorn, I-M. (eds.). Springer Verlag, p. 173-183 11 p. (Lecture Notes in Computer Science; vol. 11482).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Non-parametric contextual relationship learning for semantic video object segmentation

Wang, T. & Wang, H., 2019, *Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications - 23rd Iberoamerican Congress, CIARP 2018, Proceedings*. Vera-Rodriguez, R., Fierrez, J. & Morales, A. (eds.). Springer Verlag, p. 325-333 9 p. (Lecture Notes in Computer Science; vol. 11401).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

On the web platform cornucopia

Mikkonen, T., Pautasso, C., Systä, K. & Taivalsaari, A., 2019, *Web Engineering - 19th International Conference, ICWE 2019, Proceedings*. Bakaev, M., Ko, I-Y. & Frasinca, F. (eds.). Springer Verlag, p. 347-355 9 p. (Lecture Notes in Computer Science; vol. 11496).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Patterns for functional safety system development

Rauhämäki, J., 2019, *Transactions on Pattern Languages of Programming IV*. Springer Verlag, p. 100-138 39 p. (Lecture Notes in Computer Science; vol. 10600).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Patterns for light-weight fault tolerance and decoupled design in distributed control systems

Alho, P. & Rauhämäki, J., 2019, *Transactions on Pattern Languages of Programming IV*. Springer Verlag, p. 1-21 21 p. (Lecture Notes in Computer Science; vol. 10600).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Performance of mmwave-based mesh networks in indoor environments with dynamic blockage

Pirmagomedov, R., Moltchanov, D., Ustinov, V., Saqib, M. N. & Andreev, S., 2019, *Wired/Wireless Internet Communications - 17th IFIP WG 6.2 International Conference, WWIC 2019, Proceedings*. Di Felice, M., Natalizio, E., Bruno, R. & Kassler, A. (eds.). Springer Verlag, p. 129-140 12 p. (Lecture Notes in Computer Science; vol. 11618).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Predicting Novel Views Using Generative Adversarial Query Network

Nguyen-Ha, P., Huynh, L., Rahtu, E. & Heikkilä, J., 2019, *Image Analysis - 21st Scandinavian Conference, SCIA 2019, Proceedings*. Felsberg, M., Forssén, P-E., Unger, J. & Sintorn, I-M. (eds.). Springer Verlag, p. 16-27 12 p. (Lecture Notes in Computer Science; vol. 11482).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Ray-Based Modeling of Unlicensed-Band mmWave Propagation Inside a City Bus

Ponomarenko-Timofeev, A., Ometov, A. & Galinina, O., 2019, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, Proceedings*. Galinina, O., Andreev, S., Koucheryavy, Y. & Balandin, S. (eds.). Springer Verlag, p. 269-281 13 p. (Lecture Notes in Computer Science; vol. 11660).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Rewritability in monadic disjunctive Datalog, Mmsnp, and expressive description logics

Feier, C., Kuusisto, A. & Lutz, C., 2019, In : *Logical Methods in Computer Science*. 15, 2, p. 15:1-15:46

Research output: Contribution to journal › Article › Scientific › peer-review

Simultaneously Learning Architectures and Features of Deep Neural Networks

Wang, T., Fan, L. & Wang, H., 2019, *Artificial Neural Networks and Machine Learning – ICANN 2019: Deep Learning - 28th International Conference on Artificial Neural Networks, Proceedings*. Tetko, I. V., Karpov, P., Theis, F. & Kurková, V. (eds.). Springer Verlag, p. 275-287 13 p. (Lecture Notes in Computer Science; vol. 11728).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Teaching educational game design: Expanding the game design mindset with instructional aspects

Kiili, K. & Tuomi, P., 2019, *Games and Learning Alliance- 8th International Conference, GALA 2019, Proceedings*. Liapis, A., Yannakakis, G. N., Gentile, M. & Ninaus, M. (eds.). Springer, p. 103-113 11 p. (Lecture Notes in Computer Science ; vol. 11899).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Triggerflow: Regression Testing by Advanced Execution Path Inspection

Gridin, I., Pereida García, C., Tuveri, N. & Brumley, B. B., 2019, *Detection of Intrusions and Malware, and Vulnerability Assessment - 16th International Conference, DIMVA 2019, Proceedings*. Maurice, C., Giacinto, G., Perdisci, R., Almgren, M. & Perdisci, R. (eds.). Springer Verlag, p. 330-350 21 p. (Lecture Notes in Computer Science; vol. 11543).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Understanding the digital and non-digital participation by the gaming youth

Pietilä, I., Varsaluoma, J. & Väänänen, K., 2019, *Human-Computer Interaction – INTERACT 2019 - 17th IFIP TC 13 International Conference, Proceedings*. Lamas, D., Loizides, F., Nacke, L., Petrie, H., Winckler, M. & Zaphiris, P. (eds.). Springer Verlag, p. 453-471 19 p. (Lecture Notes in Computer Science; vol. 11747).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Usability, security and trust in password managers: A quest for user-centric properties and features

Chaudhary, S., Schafeitel-Tähtinen, T., Helenius, M. & Berki, E., 2019, In : *Computer Science Review*. 33, p. 69-90 22 p.
Research output: Contribution to journal › Review Article › Scientific › peer-review

Toward Efficient Execution of RVC-CAL Dataflow Programs on Multicore Platforms

Hautala, I., Boutellier, J., Nyländén, T. & Silvén, O., Nov 2018, In : *Journal of Signal Processing Systems*. 90, 11, p. 1507-1517 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Graph measures with high discrimination power revisited: A random polynomial approach

Dehmer, M., Chen, Z., Emmert-Streib, F., Shi, Y. & Tripathi, S., 1 Oct 2018, In : *Information Sciences*. 467, p. 407-414 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

NP-completeness results for partitioning a graph into total dominating sets

Koivisto, M., Laakkonen, P. & Lauri, J., 1 Jan 2018, In : *Theoretical Computer Science*.

Research output: Contribution to journal › Article › Scientific › peer-review

18th International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networks and Systems, NEW2AN 2018 and 11th Conference on Internet of Things and Smart Spaces, ruSMART 2018

Galinina, O., Andreev, S., Balandin, S. & Koucheryavy, Y., 2018, Springer Verlag. 720 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS)

Research output: Book/Report › Anthology › Scientific › peer-review

3D folded loop UAV antenna design

Pyattaev, A., Solomitckii, D. & Ometov, A., 2018, *Wired/Wireless Internet Communications - 16th IFIP WG 6.2 International Conference, WWIC 2018, Proceedings*. Springer Verlag, p. 269-281 13 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10866 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A Concise Review of 5G New Radio Capabilities for Directional Access at mmWave Frequencies

Sanfilippo, G., Galinina, O., Andreev, S., Pizzi, S. & Araniti, G., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer Verlag, p. 340-354 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

ADVIO: An authentic dataset for visual-inertial odometry

Cortés, S., Solin, A., Rahtu, E. & Kannala, J., 2018, *Computer Vision – ECCV 2018 - 15th European Conference, 2018, Proceedings*. Springer Verlag, p. 425-440 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11214 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A Lower Bound on the Average Identification Time in a Passive RFID System

Stepanov, N., Matveev, N., Galinina, O. & Turlikov, A., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer Verlag, p. 524-534 11 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

An algebraic approach to reducing the number of variables of incompletely defined discrete functions

Astola, J., Astola, P., Stanković, R. & Tabus, I., 2018, In : *Journal of Multiple-Valued Logic and Soft Computing*. 31, 3, p. 239-253 15 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Analytical Models for Schedule-Based License Assisted Access (LAA) LTE Systems

Markova, E., Moltchanov, D., Sinitsyna, A., Ivanova, D., Filipova, V., Gudkova, I. & Samouylov, K., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer Verlag, p. 210-223 14 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Characterizing mmWave Radio Propagation at 60 GHz in a Conference Room Scenario

Ponomarenko-Timofeev, A., Semkin, V., Masek, P. & Galinina, O., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer Verlag, p. 381-393 13 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Computing minimum rainbow and strong rainbow colorings of block graphs

Keranen, M. & Lauri, J., 2018, In : *Discrete Mathematics and Theoretical Computer Science*. 20, 1, 22.
Research output: Contribution to journal > Article > Scientific > peer-review

Convolutional neural network based inter-frame enhancement for 360-degree video streaming

Li, Y., Yu, L., Lin, C., Zhao, Y. & Gabbouj, M., 2018, *Advances in Multimedia Information Processing – PCM 2018 - 19th Pacific-Rim Conference on Multimedia, 2018*. Springer, p. 57-66 10 p. (Lecture Notes in Computer Science; vol. 11165).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Current Trends in Web Engineering: ICWE 2018 International Workshops, MATWEP, EnWot, KD-WEB, WEOD, TourismKG, Cáceres, Spain, June 5, 2018, Revised Selected Papers

Pautasso, C. (ed.), Sánchez-Figueroa, F. (ed.), Systä, K. (ed.) & Rodríguez, J. M. M. (ed.), 2018, Springer. 298 p. (Lecture Notes in Computer Science; vol. 11153)
Research output: Book/Report > Anthology > Scientific > peer-review

Gibbs Dyadic Differentiation on Groups - Evolution of the Concept

Stankovic, R. S., Astola, J. & Moraga, C., 2018, *Computer Aided Systems Theory – EUROCAST 2017 - 16th International Conference, Revised Selected Papers*. Springer Verlag, p. 229-237 9 p. (Lecture Notes in Computer Science; vol. 10672).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Information Exchange Architecture for Collaborative Industrial Ecosystem

Kannisto, P., Hästbacka, D. & Martinen, A., 2018, In : *Information Systems Frontiers*. p. 1-16
Research output: Contribution to journal > Article > Scientific > peer-review

IoT Application Deployment Using Request-Response Pattern with MQTT

Luoto, A. & Systä, K., 2018, *Current Trends in Web Engineering: ICWE 2017 International Workshops, Liquid Multi-Device Software and EnWoT, practi-O-web, NLPIT, SoWeMine, Rome, Italy, June 5-8, 2017, Revised Selected Papers*. Springer Verlag, Vol. 10544. p. 48-60 13 p. (Lecture Notes in Computer Science; vol. 10544).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Kinetic Approach to Elasticity Analysis of D2D Links Quality Indicators Under Non-stationary Random Walk Mobility Model

Samuylov, A. K., Ivchenko, A. Y., Orlov, Y. N., Moltchanov, D. A., Bobrikova, E. V., Gaidamaka, Y. V. & Shorgin, V. S., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer, p. 224-235 12 p. (Lecture Notes in Computer Science; vol. 11118).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Liquid Transfer of User Identity

Thangavel, S. & Systä, K., 2018, *Current Trends in Web Engineering - ICWE 2017 International Workshops, Liquid Multi-Device Software and EnWoT, practi-O-web, NLPIT, SoWeMine, Revised Selected Papers*. Springer Verlag, p. 92-107 16 p. (Lecture Notes in Computer Science; vol. 10544).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Memory Tampering Attack on Binary GCD Based Inversion Algorithms

Aldaya, A. C., Brumley, B. B., Sarmiento, A. J. C. & Sánchez-Solano, S., 2018, In : *International Journal of Parallel Programming*. p. 1-20

Research output: Contribution to journal › Article › Scientific › peer-review

Model-Based Dynamic Scheduling for Multicore Signal Processing

Wu, J., Blattner, T., Keyrouz, W. & Bhattacharyya, S. S., 2018, In : *Journal of Signal Processing Systems*. p. 1-14 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Model-Based Representations for Dataflow Schedules

Bhattacharyya, S. S. & Lilius, J., 2018, *Principles of Modeling*. Springer Verlag, p. 88-105 18 p. (Lecture Notes in Computer Science; vol. 10760).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Modeling and Engineering Promoters with Pre-defined RNA Production Dynamics in Escherichia Coli

Oliveira, S. M. D., Bahrudeen, M. N. M., Startceva, S., Kandavalli, V. & Ribeiro, A. S., 2018, *Computational Methods in Systems Biology - 16th International Conference, CMSB 2018, Proceedings*. Springer Verlag, p. 3-20 18 p. (Lecture Notes in Bioinformatics; vol. 11095 LNBI).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

MultiMedia Modeling: 24th International Conference, MMM 2018, Bangkok, Thailand, February 5-7, 2018, Proceedings, Part I

Schoeffmann, K. (ed.), Chalidabhongse, T. H. (ed.), Ngo, C. W. (ed.), Aramvith, S. (ed.), O'Connor, N. E. (ed.), Ho, Y. S. (ed.), Gabbouj, M. (ed.) & Elgammal, A. (ed.), 2018, Springer. 648 p. (Lecture Notes in Computer Science; vol. 10704)

Research output: Book/Report › Anthology › Scientific › peer-review

MultiMedia Modeling: 24th International Conference, MMM 2018, Bangkok, Thailand, February 5-7, 2018, Proceedings, Part II

Aramvith, S., Ho, Y. S., O'Connor, N. E., Chalidabhongse, T., Schoeffmann, K., Ngo, C. W., Gabbouj, M. & Elgammal, A., 2018, Springer. 460 p. (Lecture Notes in Computer Science; vol. 10705)

Research output: Book/Report › Anthology › Scientific › peer-review

On the degeneracy of the Randić entropy and related graph measures

Dehmer, M., Chen, Z., Mowshowitz, A., Jodlbauer, H., Emmert-Streib, F., Shi, Y., Tripathi, S. & Xia, C., 2018, In : *Information Sciences*.

Research output: Contribution to journal › Article › Scientific › peer-review

Optimization on ports activation towards energy efficient data center networks

Chkirkbene, Z., Hamila, R., Fofou, S., Kiranyaz, S. & Gabbouj, M., 2018, *Ubiquitous Networking - 4th International Symposium, UNet 2018, Revised Selected Papers*. Springer Verlag, p. 155-166 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11277 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Performance Limitations of Parsing Libraries: State-of-the-Art and Future Perspectives

D'Agostino, A. M., Ometov, A., Pyattaev, A., Andreev, S. & Araniti, G., 2018, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 18th International Conference, NEW2AN 2018, and 11th Conference, ruSMART 2018, Proceedings*. Springer Verlag, p. 405-418 14 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11118 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

PESTEL Analysis of Hacktivism Campaign Motivations

Nurmi, J. & Niemelä, M. S., 2018, *Secure IT Systems - 23rd Nordic Conference, NordSec 2018*. Springer Verlag, p. 323-335 13 p. (Lecture Notes in Computer Science; vol. 11252).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Preface

Galinina, O., Balandin, S., Andreev, S. & Koucheryavy, Y., 2018, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 11118 LNCS, p. v-vi
Research output: Contribution to journal › Editorial › Scientific

Reduction of variables of index generation functions using linear and quadratic transformations

Astola, H., Stanković, R. & Astola, J., 2018, In : Journal of Multiple-Valued Logic and Soft Computing. 31, 3, p. 255-270
16 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Representational quality challenges of big data: insights from comparative case studies

Wahyudi, A., Pekkola, S. & Janssen, M., 2018, *Challenges and Opportunities in the Digital Era - 17th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2018, Proceedings*. Springer Verlag, p. 520-538 19 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11195 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Subjective quality of spatially asymmetric omnidirectional stereoscopic video for streaming adaptation

Curcio, I. D. D., Naik, D., Toukoma, H. & Zare, A., 2018, *Smart Multimedia - 1st International Conference, ICSM 2018, Revised Selected Papers*. Springer, p. 417-428 12 p. (Lecture Notes in Computer Science; vol. 11010).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Quantitative Graph Theory: A new branch of graph theory and network science

Dehmer, M., Emmert-Streib, F. & Shi, Y., 1 Dec 2017, In : Information Sciences. 418-419, p. 575-580 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Highly unique network descriptors based on the roots of the permanent polynomial

Dehmer, M., Emmert-Streib, F., Hu, B., Shi, Y., Stefu, M. & Tripathi, S., 1 Oct 2017, In : Information Sciences. 408, p. 176-181 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Guest Editorial: Implementation Issues in System-on-Chip

Ellervee, P. & Nurmi, J., 1 Jun 2017, In : Journal of Signal Processing Systems. 87, 3, p. 269-270 2 p.

Research output: Contribution to journal › Editorial › Scientific

Power Mitigation by Performance Equalization in a Heterogeneous Reconfigurable Multicore Architecture

Hussain, W., Hoffmann, H., Ahonen, T. & Nurmi, J., Jun 2017, In : Journal of Signal Processing Systems. 87, 3, p. 287-297 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Row-interleaved sampling for depth-enhanced 3d video coding for polarized displays

Homayouni, M., Aflaki, P., Hannuksela, M. M. & Gabbouj, M., 1 Mar 2017, In : ACM TRANSACTIONS ON APPLIED PERCEPTION. 14, 3, 15.

Research output: Contribution to journal › Article › Scientific › peer-review

Abstractions for transition systems with applications to stubborn sets

Hansen, H., 1 Jan 2017, *Concurrency, Security, and Puzzles: Essays Dedicated to Andrew William Roscoe on the Occasion of His 60th Birthday*. Gibson-Robinson, T., Hopcroft, P. & Lazić, R. (eds.). Springer International Publishing, p. 104-123 20 p. (Lecture Notes in Computer Science; vol. 10160).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific

More stubborn set methods for process algebras

Valmari, A., 1 Jan 2017, *Concurrency, Security, and Puzzles: Essays Dedicated to Andrew William Roscoe on the Occasion of His 60th Birthday*. Gibson-Robinson, T., Hopcroft, P. & Lazić, R. (eds.). Springer International Publishing, p. 246-271 26 p. (Lecture Notes in Computer Science; vol. 10160).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific

A co-design study of digital service ideas in the bus context

Hildén, E., Ojala, J. & Väänänen, K., 2017, *Human-Computer Interaction - INTERACT 2017 - 16th IFIP TC 13 International Conference, Proceedings*. Springer Verlag, p. 295-312 18 p. (Lecture Notes in Computer Science; vol. 10513).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A Hybrid Task Graph Scheduler for High Performance Image Processing Workflows

Blattner, T., Keyrouz, W., Bhattacharyya, S. S., Halem, M. & Brady, M., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 457–467 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

ASR in classroom today: Automatic visualization of conceptual network in science classrooms

Caballero, D., Araya, R., Kronholm, H., Viiri, J., Mansikkaniemi, A., Lehesvuori, S., Virtanen, T. & Kurimo, M., 2017, *Data Driven Approaches in Digital Education - 12th European Conference on Technology Enhanced Learning, EC-TEL 2017, Proceedings*. Springer Verlag, p. 541-544 4 p. (Lecture Notes in Computer Science; vol. 10474).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Battery monitoring within industry 4.0 landscape: Solution as a service (SaaS) for industrial power unit systems

Devos, M. & Masek, P., 2017, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 17th International Conference, NEW2AN 2017, 10th Conference, ruSMART 2017, 3rd Workshop NsCC 2017, Proceedings*. Springer Verlag, p. 40-52 13 p. (Lecture Notes in Computer Science; vol. 10531).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Characterizing time-dependent variance and coefficient of variation of SIR in D2D connectivity

Ivchenko, A., Orlov, Y., Samouylov, A., Molchanov, D. & Gaidamaka, Y., 2017, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 17th International Conference, NEW2AN 2017, 10th Conference, ruSMART 2017, 3rd Workshop NsCC 2017, Proceedings*. Springer Verlag, p. 526-535 10 p. (Lecture Notes in Computer Science; vol. 10531).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Data Flow Algorithms for Processors with Vector Extensions: Handling Actors With Internal State

Barford, L., Bhattacharyya, S. S. & Liu, Y., 2017, In : *Journal of Signal Processing Systems*. 87, 1, p. 21-31

Research output: Contribution to journal > Article > Scientific > peer-review

Design Flow for GPU and Multicore Execution of Dynamic Dataflow Programs

Boutellier, J. & Nyländén, T., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 469–478 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

ICT based interventions for anganwadi healthcare workers in Mumbai

Thankachan, B., Sharma, S., Turunen, M., Linna, J., Väättäjä, H., Kortekaas, R. & Gross, T., 2017, *Human-Computer Interaction - INTERACT 2017 - 16th IFIP TC 13 International Conference, Proceedings*. Springer Verlag, p. 485-487 3 p. (Lecture Notes in Computer Science; vol. 10516).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Implementation of a Multirate Resampler for Multi-carrier Systems on GPUs

Kim, S. C. & Bhattacharyya, S. S., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 445–455 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 17th International Conference, NEW2AN 2017, 10th Conference, ruSMART 2017, Third Workshop NsCC 2017, St. Petersburg, Russia, August 28–30, 2017, Proceedings

Galinina, O. (ed.), Andreev, S. (ed.), Balandin, S. (ed.) & Koucheryavy, Y. (ed.), 2017, Springer Verlag. (Lecture Notes in Computer Science; vol. 10531)

Research output: Book/Report > Anthology > Scientific > peer-review

Local adaptive wiener filtering for class averaging in single particle reconstruction

Abdollahzadeh, A., Acar, E., Peltonen, S. & Ruotsalainen, U., 2017, *Image Analysis - 20th Scandinavian Conference, SCIA 2017, Proceedings*. Springer Verlag, p. 233-244 12 p. (Lecture Notes in Computer Science; vol. 10270).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Multi-task Deep Face Recognition

Yuan, J., Ma, W., Zhu, P. & Egiazarian, K., 2017, *Biometric Recognition - 12th Chinese Conference, CCBIR 2017, Proceedings*. Springer Verlag, p. 183-190 8 p. (Lecture Notes in Computer Science; vol. 10568).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

NP-completeness results for partitioning a graph into total dominating sets

Koivisto, M., Laakkonen, P. & Lauri, J., 2017, *Computing and Combinatorics - 23rd International Conference, COCOON 2017, Proceedings*. Springer Verlag, p. 333-345 13 p. (Lecture Notes in Computer Science; vol. 10392).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Parallel Digital Predistortion Design on Mobile GPU and Embedded Multicore CPU for Mobile Transmitters

Li, K., Ghazi, A., Tarver, C., Boutellier, J., Abdelaziz, M., Anttila, L., Juntti, M., Valkama, M. & Cavallaro, J. R., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 417-430 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Parental perspectives towards education technology in low-income urban households

Sharma, S., Linna, J., Thankachan, B., Turunen, M., Väättäjä, H., Kallioniemi, P., Read, J. C. & Sim, G., 2017, *Human-Computer Interaction - INTERACT 2017 - 16th IFIP TC 13 International Conference, Proceedings*. Springer Verlag, p. 501-503 3 p. (Lecture Notes in Computer Science; vol. 10516).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Relative camera pose estimation using convolutional neural networks

Melekhov, I., Ylioinas, J., Kannala, J. & Rahtu, E., 2017, *Advanced Concepts for Intelligent Vision Systems - 18th International Conference, ACIVS 2017, Proceedings*. Springer Verlag, p. 675-687 13 p. (Lecture Notes in Computer Science; vol. 10617).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Robust Deep Face Recognition with Label Noise

Yuan, J., Ma, W., Zhu, P. & Egiazarian, K., 2017, *Neural Information Processing - 24th International Conference, ICONIP 2017, Proceedings*. Springer Verlag, p. 593-602 10 p. (Lecture Notes in Computer Science; vol. 10635).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Search of the emotional design effect in programming revised

Nurminen, M., Leppänen, L., Väättäjä, H. & Ihantola, P., 2017, *Data Driven Approaches in Digital Education - 12th European Conference on Technology Enhanced Learning, EC-TEL 2017, Proceedings*. Springer Verlag, p. 434-440 7 p. (Lecture Notes in Computer Science; vol. 10474).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Stubborn set intuition explained

Valmari, A. & Hansen, H., 2017, *Transactions on Petri Nets and Other Models of Concurrency XII*. Springer Verlag, p. 140-165 26 p. (Lecture Notes in Computer Science; vol. 10470).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Stubborn sets with frozen actions

Valmari, A., 2017, *Reachability Problems - 11th International Workshop, RP 2017, Proceedings*. Springer Verlag, p. 160-175 16 p. (Lecture Notes in Computer Science; vol. 10506).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The time will tell on you: Exploring information leaks in SSH public key authentication

Kannisto, J. & Harju, J., 2017, *Network and System Security: 11th International Conference, NSS 2017, Helsinki, Finland, August 21-23, 2017, Proceedings*. Springer, p. 301-314 14 p. (Lecture Notes in Computer Science; vol. 10394).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Time-dependent SIR analysis in shopping malls using fractal-based mobility models

Orlov, Y., Kirina-Lilinskaya, E., Samuylov, A., Ometov, A., Moltchanov, D., Gaimamaka, Y., Andreev, S. & Samouylov, K., 2017, *Wired/Wireless Internet Communications - 15th IFIP WG 6.2 International Conference, WWIC 2017, Proceedings*. Springer, p. 16-25 10 p. (Lecture Notes in Computer Science; vol. 10372).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Tor de-anonymisation techniques

Nurmi, J. & Niemelä, M. S., 2017, *Network and System Security: 11th International Conference, NSS 2017, Helsinki, Finland, August 21–23, 2017, Proceedings*. Springer, p. 657-671 15 p. (Lecture Notes in Computer Science; vol. 10394).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Wired/Wireless Internet Communications: 15th IFIP WG 6.2 International Conference, WWIC 2017, St. Petersburg, Russia, June 21–23, 2017, Proceedings

Koucheryavy, Y. (ed.), Mamatas, L. (ed.), Matta, I. (ed.), Ometov, A. (ed.) & Papadimitriou, P. (ed.), 2017, Springer. (Lecture Notes in Computer Science; vol. 10372)

Research output: Book/Report › Anthology › Scientific › peer-review

A survey on internal interfaces used by exploits and implications on interface diversification

Rauti, S., Lauren, S., Uitto, J., Hosseinzadeh, S., Ruohonen, J., Hyrynsalmi, S. & Leppänen, V., 2 Nov 2016, *Secure IT Systems - 21st Nordic Conference, NordSec 2016, Proceedings*. Springer Verlag, Vol. 10014 LNCS. p. 152-168 17 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10014 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Coverage and network requirements of a "Big Data" flash crowd monitoring system using users' devices

Nguyen, A., Komarov, M. & Moltchanov, D., 20 Sep 2016, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 16th International Conference, NEW2AN 2016 and 9th Conference, ruSMART 2016, Proceedings*. Springer International Publishing AG, p. 372-382 11 p. (Lecture Notes in Computer Science; vol. 9870).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Dynamic trust management framework for robotic multi-agent systems

Zikratov, I., Maslennikov, O., Lebedev, I., Ometov, A. & Andreev, S., 20 Sep 2016, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 16th International Conference, NEW2AN 2016 and 9th Conference, ruSMART 2016, Proceedings*. Springer International Publishing AG, Vol. 9870. p. 339-348 10 p. (Lecture Notes in Computer Science; vol. 9870).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Evaluating a case of downlink uplink decoupling using queuing system with random requirements

Sopin, E., Samouylov, K., Vikhrova, O., Kovalchukov, R., Moltchanov, D. & Samuylov, A., 20 Sep 2016, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 16th International Conference, NEW2AN 2016 and 9th Conference, ruSMART 2016, Proceedings*. Springer International Publishing, p. 440-450 11 p. (Lecture Notes in Computer Science; vol. 9870).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Intra-CPU traffic estimation and implications on networks-on-chip research

Moltchanov, D., Kluchev, A., Kustarev, P., Borunova, K. & Platonov, A., 20 Sep 2016, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 16th International Conference, NEW2AN 2016 and 9th Conference, ruSMART 2016, Proceedings*. Springer International Publishing AG, p. 453-464 12 p. (Lecture Notes in Computer Science; vol. 9870).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Optimizing network-assisted WLAN systems with aggressive channel utilization

Ometov, A., Andreev, S., Levina, A. & Bezzateev, S., 20 Sep 2016, *Internet of Things, Smart Spaces, and Next Generation Networks and Systems - 16th International Conference, NEW2AN 2016 and 9th Conference, ruSMART 2016, Proceedings*. Springer International Publishing AG, p. 217-229 13 p. (Lecture Notes in Computer Science; vol. 9870).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Application and theory of Petri nets and other models of concurrency: Special issue of selected papers from Petri Nets 2015

Devillers, R., Valmari, A. & Penczek, W., 13 Sep 2016, In : *Fundamenta Informaticae*. 146, 1, p. v-vi
Research output: Contribution to journal › Editorial › Scientific

Optimization of Flexible Filter Banks Based on Fast Convolution

Yli-Kaakinen, J. & Renfors, M., Aug 2016, In : *Journal of Signal Processing Systems*. 85, 1, p. 101-111
Research output: Contribution to journal › Article › Scientific › peer-review

Fifty years of graph matching, network alignment and network comparison

Emmert-Streib, F., Dehmer, M. & Shi, Y., 10 Jun 2016, In : *Information Sciences*. 346-347, p. 180-197 18 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Constructing Minimal Coverability Sets

Piipponen, A. & Valmari, A., 4 Mar 2016, In : *Fundamenta Informaticae*. 143, 3-4, p. 393-414 22 p.
Research output: Contribution to journal › Article › Scientific › peer-review

A prospect for computing in porous materials research: Very large fluid flow simulations

Mattila, K., Puurtinen, T., Hyv aluoma, J., Surmas, R., Mylly, M., Turpeinen, T., Roberts en, F., Westerholm, J. & Timonen, J., 1 Jan 2016, In : *Journal of Computational Science*. 12, p. 62-76 15 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Are software developers just users of development tools? Assessing developer experience of a graphical user interface designer

Kuusinen, K., 2016, *Human-Centered and Error-Resilient Systems Development - IFIP WG 13.2/13.5 Joint Working Conference 6th International Conference on Human-Centered Software Engineering, HCSE 2016 and 8th International Conference on Human Error, Safety, and System Development, HESSD 2016, Proceedings*. Springer Verlag, p. 215-233 19 p. (Lecture Notes in Computer Science; vol. 9856).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Backend infrastructure supporting audio augmented reality and storytelling

Salo, K., Giova, D. & Mikkonen, T., 2016, *Human Interface and the Management of Information: Applications and Services: 18th International Conference, HCI International 2016 Toronto, Canada, July 17-22, 2016. Proceedings, Part II*. Springer Verlag, p. 325-335 11 p. (Lecture Notes in Computer Science; vol. 9735).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Construction of enterprise architecture in discourses within the public sector

Lemmetti, J., 2016, *Electronic Government - 15th IFIP WG 8.5 International Conference, EGOV 2016, Proceedings*. Springer Verlag, p. 287-298 12 p. (Lecture Notes in Computer Science; vol. 9820).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Coordinating decision-making in data management activities: A systematic review of data governance principles

Brous, P., Janssen, M. & Vilminko-Heikkinen, R., 2016, *Electronic Government - 15th IFIP WG 8.5 International Conference, EGOV 2016, Proceedings*. Springer Verlag, p. 115-125 11 p. (Lecture Notes in Computer Science; vol. 9820).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Customer involvement in continuous deployment: A systematic literature review

Yaman, S. G., Sauvola, T., Riungu-Kalliosaari, L., Hokkanen, L., Kuvaja, P., Oivo, M. & M nnist , T., 2016, *Requirements Engineering: Foundation for Software Quality: 22nd International Working Conference, REFSQ 2016, Gothenburg, Sweden, March 14-17, 2016, Proceedings*. Springer Verlag, p. 249-265 17 p. (Lecture Notes in Computer Science; vol. 9619).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fair testing and stubborn sets

Valmari, A. & Vogler, W., 2016, *Model Checking Software: 23rd International Symposium, SPIN 2016, Co-located with ETAPS 2016, Eindhoven, The Netherlands, April 7-8, 2016, Proceedings*. Springer Verlag, p. 225-243 19 p. (Lecture Notes in Computer Science; vol. 9641).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Global scale integral volumes

Bhattacharya, S., Fan, L., Babahajiani, P. & Gabbouj, M., 2016, *Computer Vision - ECCV 2016 Workshops, Proceedings*. Springer International Publishing, Vol. 9913. p. 192-204 13 p. (Lecture Notes in Computer Science; vol. 9913).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

HTML5-based mobile agents for Web-of-Things

Voutilainen, J. P., Mattila, A. L., Systä, K. & Mikkonen, T., 2016, In : *Informatica*. 40, 1, p. 43-51 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

IEEE 802.11ac MIMO Transceiver Baseband Processing on a VLIW Processor

Aghababaeetafreshi, M., Lehtonen, L. K., Levanen, T., Valkama, M. & Takala, J., 2016, In : *Journal of Signal Processing Systems*.

Research output: Contribution to journal › Article › Scientific › peer-review

Implementing a broadcast storm attack on a mission-critical wireless sensor network

Krivtsova, I., Lebedev, I., Sukhoparov, M., Bazhayev, N., Zikratov, I., Ometov, A., Andreev, S., Masek, P., Fujdiak, R. & Hosek, J., 2016, *Wired/Wireless Internet Communications: 14th IFIP WG 6.2 International Conference, WWIC 2016, Thessaloniki, Greece, May 25-27, 2016, Proceedings*. Springer Verlag, Vol. 9674. p. 297-308 12 p. (Lecture Notes in Computer Science; vol. 9674).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Instrumentation-Driven Validation of Dataflow Applications

Chukhman, I., Jiao, Y., Salem, H. B. & Bhattacharyya, S. S., 2016, In : *Journal of Signal Processing Systems*. 84, 3, p. 383-397

Research output: Contribution to journal › Article › Scientific › peer-review

IS acquisition characteristics in the public sector

Mäki-Lohiluoma, P., Hellsten, P. & Pekkola, S., 2016, *Electronic Government - 15th IFIP WG 8.5 International Conference, EGOV 2016, Proceedings*. Springer Verlag, p. 164-175 12 p. (Lecture Notes in Computer Science; vol. 9820).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Mobile soundscape mixer – ready for action

Salo, K., Bauters, M. & Mikkonen, T., 2016, *Mobile Web and Intelligent Information Systems - 13th International Conference, MobiWIS 2016, Proceedings*. Springer Verlag, p. 18-30 13 p. (Lecture Notes in Computer Science; vol. 9847).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

On the arity gap of finite functions: Results and applications

Couceiro, M. & Lehtonen, E., 2016, In : *Journal of Multiple-Valued Logic and Soft Computing*. 27, 2-3, p. 193-207 15 p.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Operating system compositor and hardware usage to enhance graphical performance in web runtimes

Peuhkurinen, A., Fedorov, A. & Systä, K., 2016, *Web Engineering: 16th International Conference, ICWE 2016, Lugano, Switzerland, June 6-9, 2016, Proceedings*. Springer Verlag, p. 381-388 8 p. (Lecture Notes in Computer Science; vol. 9671).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Private cloud deployment model in open-source mobile robots ecosystem

Oksa, P. & Loula, P., 2016, *Towards Autonomous Robotic Systems: 17th Annual Conference, TAROS 2016, Sheffield, UK, June 26-July 1, 2016, Proceedings*. Springer Verlag, p. 239-248 10 p. (Lecture Notes in Computer Science; vol. 9716).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Supporting management of hybrid OSS communities - A stakeholder analysis approach

Mäenpää, H., Kojo, T., Munezero, M., Fagerholm, F., Kilamo, T., Nurminen, M. & Männistö, T., 2016, *Product-Focused Software Process Improvement - 17th International Conference, PROFES 2016, Proceedings*. Springer Verlag, p. 102-108 7 p. (Lecture Notes in Computer Science; vol. 10027).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Synchronizing application state using virtual DOM trees

Voutilainen, J-P., Mikkonen, T. & Systä, K., 2016, *Current Trends in Web Engineering: ICWE 2016 International Workshops DUI, TELERISE, SoWeMine, and Liquid Web, Revised Selected Papers*. Springer Verlag, p. 142-154 13 p. (Lecture Notes in Computer Science; vol. 9881).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

System design and analysis of UAV-assisted BLE wireless sensor systems

Komarov, M. & Moltchanov, D., 2016, *Wired/Wireless Internet Communications: 14th IFIP WG 6.2 International Conference, WWIC 2016, Thessaloniki, Greece, May 25-27, 2016, Proceedings*. Springer Verlag, p. 284-296 13 p. (Lecture Notes in Computer Science; vol. 9674).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Temperature dependence of leakiness of transcription repression mechanisms of Escherichia coli

Goncalves, N., Oliveira, S. M. D., Kandavalli, V. K., Fonseca, J. M. & S. Ribeiro, A., 2016, *Computational Methods in Systems Biology - 14th International Conference, CMSB 2016*. Springer Verlag, p. 341-342 2 p. (Lecture Notes in Computer Science; vol. 9859).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The developers dilemma: Perfect product development or fast business validation?

Terho, H., Suonsyrjä, S. & Systä, K., 2016, *Product-Focused Software Process Improvement - 17th International Conference, PROFES 2016, Proceedings*. Springer Verlag, p. 571-579 9 p. (Lecture Notes in Computer Science; vol. 10027).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Towards model construction based on test cases and GUI extraction

Jääskeläinen, A., 2016, *Testing Software and Systems - 28th IFIP WG 6.1 International Conference, ICTSS 2016, Proceedings*. Springer Verlag, p. 225-230 6 p. (Lecture Notes in Computer Science; vol. 9976).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Software evolution and time series volatility: An empirical exploration

Ruohonen, J., Hyrynsalmi, S. & Leppänen, V., 30 Aug 2015, *14th International Workshop on Principles of Software Evolution, IWSE 2015 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 30-Aug-2015. p. 56-65 10 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Automatic verification of Dafny programs with traits

Ahmadi, R., Leino, K. R. M. & Nummenmaa, J., 7 Jul 2015, *Proceedings for the 17th Workshop on Formal Techniques for Java-like Programs, FTfJP 2015: co-located with ECOOP 2015*. Association for Computing Machinery, Inc, a4

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Accuracy evaluation of a linear positioning system for light field capture

Vagharshakyan, S., Durmush, A., Suominen, O., Bregovic, R. & Gotchev, A., 2015, *Intelligent Information and Database Systems: 7th Asian Conference, ACIIDS 2015, Bali, Indonesia, March 23-25, 2015, Proceedings, Part II*. Springer Verlag, p. 388-397 10 p. (Lecture Notes in Computer Science; vol. 9012).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A conceptual model towards the scaffolding of learning experience

Arnab, S., Ger, P. M., Lim, T., Lamerias, P., Hendrix, M., Kiili, K., Hauge, J. B., Ninaus, M., de Freitas, S., Mazzetti, A., Dahlbom, A., Degano, C., Stanescu, I. & Riveiro, M., 2015, *Third International Conference, GALA 2014, Bucharest, Romania, July 2-4, 2014*. Springer Verlag, Vol. 9221. p. 83-96 14 p. (Lecture Notes in Computer Science (including

subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9221).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Analysis of HVS-metrics' properties using color image database TID2013

Ponomarenko, N., Lukin, V., Astola, J. & Egiazarian, K., 2015, *Advanced Concepts for Intelligent Vision Systems: 16th International Conference, ACIVS 2015, Catania, Italy, October 26-29, 2015. Proceedings*. Springer Verlag, p. 613-624 12 p. (Lecture Notes in Computer Science; vol. 9386).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Application and Theory of Petri Nets and Concurrency: 36th International Conference, PETRI NETS 2015 Brussels, Belgium, June 21-26, 2015 Proceedings

Devillers, R. (ed.) & Valmari, A. (ed.), 2015, Springer Verlag. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9115)

Research output: Book/Report › Anthology › Scientific › peer-review

Applying finite state process algebra to formally specify a computational model of security requirements in the key2phone-mobile access solution

Chaudhary, S., Li, L., Berki, E., Helenius, M., Kela, J. & Turunen, M., 2015, *Lecture Notes in Computer Science*. Springer Verlag, p. 128-145 18 p. (Lecture Notes in Computer Science; vol. 9128).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Bayesian statistical analysis for performance evaluation in real-time control systems

Boström, P., Heikkilä, M., Huova, M., Waldèn, M. & Linjama, M., 2015, *Quantitative Evaluation of Systems: 12th International Conference, QEST 2015, Madrid, Spain, September 1-3, 2015, Proceedings*. Springer Verlag, Vol. 9259. p. 312-328 17 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9259).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Cache storage attacks

Brumley, B. B., 2015, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, p. 22-34 13 p. (Lecture Notes in Computer Science; vol. 9048).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Complex transforms

Murthy, G. R. & Saramäki, T., 2015, *Mining Intelligence and Knowledge Exploration: Third International Conference, MIKE 2015, Hyderabad, India, December 9-11, 2015, Proceedings*. Springer Verlag, p. 382-391 10 p. (Lecture Notes in Computer Science; vol. 9468).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Delayed key exchange for constrained smart devices

Kannisto, J., Heikkinen, S., Slavov, K. & Harju, J., 2015, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, p. 12-26 15 p. (Lecture Notes in Computer Science; vol. 8629).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Detecting and tracking the tips of fluorescently labeled mitochondria in U2OS cells

Lihavainen, E., Mäkelä, J., Spelbrink, J. N. & Ribeiro, A. S., 2015, *Image Analysis and Processing — ICIAP 2015: 18th International Conference, Genoa, Italy, September 7-11, 2015, Proceedings, Part II*. Springer Verlag, Vol. 9280. p. 363-372 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9280).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Diversification of system calls in linux binaries

Rauti, S., Laurén, S., Hosseinzadeh, S., Mäkelä, J. M., Hyrynsalmi, S. & Leppänen, V., 2015, *Trusted Systems - 6th International Conference, INTRUST 2014, Revised Selected Papers*. Springer Verlag, p. 15-35 21 p. (Lecture Notes in Computer Science; vol. 9473).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Existence and synthesis of complex hopfield type associative memories

Rama Murthy, G. & Gabbouj, M., 2015, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, p. 356-369 14 p. (Lecture Notes in Computer Science; vol. 9095).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Gender classification by LUT based boosting of overlapping block patterns

Mehta, R., Günther, M. & Marcel, S., 2015, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, p. 530-542 13 p. (Lecture Notes in Computer Science; vol. 9127).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Interaction and humans in internet of things

Turunen, M., Sonntag, D., Engelbrecht, K-P., Olsson, T., Schnelle-Walka, D. & Lucero, A., 2015, *Lecture Notes in Computer Science*. Springer Verlag, p. 633-636 4 p. (Lecture Notes in Computer Science; vol. 9299).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Life in the fast lane: Effect of language and calibration accuracy on the speed of text entry by gaze

Räihä, K. J., 2015, *Human-Computer Interaction – INTERACT 2015 - 15th IFIP TC 13 International Conference, Proceedings*. Springer Verlag, Vol. 9296. p. 402-417 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9296).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Mining itemset-based distinguishing sequential patterns with gap constraint

Yang, H., Duan, L., Dong, G., Nummenmaa, J., Tang, C. & Li, X., 2015, *Database Systems for Advanced Applications - 20th International Conference, DASFAA 2015, Proceedings Hanoi, Vietnam, April 20-23, 2015 Proceedings, Part I*. Springer Verlag, Vol. 9049. p. 39-54 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9049).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Non-local sigma filter

Ponomarenko, N., Lukin, V., Astola, J. & Egiazarian, K., 2015, *Image Analysis and Processing — ICIAP 2015: 18th International Conference, Genoa, Italy, September 7-11, 2015, Proceedings, Part II*. Springer Verlag, Vol. 9280. p. 483-493 11 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9280).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Remarks on characterization of bent functions in terms of gibbs dyadic derivatives

Stanković, R. S., Astola, J. T., Moraga, C., Stanković, M. & Gajić, D., 2015, *Computer Aided Systems Theory – EUROCAST 2015: 15th International Conference, Las Palmas de Gran Canaria, Spain, February 8-13, 2015, Revised Selected Papers*. Springer, p. 632-639 8 p. (Lecture Notes in Computer Science; vol. 9520).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Speaker verification using adaptive dictionaries in non-negative spectrogram deconvolution

Drgas, S. & Virtanen, T., 2015, *Latent Variable Analysis and Signal Separation: 12th International Conference, LVA/ICA 2015, Liberec, Czech Republic, August 25-28, 2015, Proceedings*. Springer Verlag, Vol. 9237. p. 462-469 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9237).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

The Extended 1-D (One-Dimensional) Discrete Phase Retrieval Problem

Rusu, C. & Astola, J., 2015, *Computer Aided Systems Theory – EUROCAST 2015: 15th International Conference, Las Palmas de Gran Canaria, Spain, February 8-13, 2015, Revised Selected Papers*. Springer, p. 640-647 8 p. (Lecture Notes in Computer Science; vol. 9520).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Three positives make one negative: Public sector is procurement

Alanne, A., Hellsten, P., Pekkola, S. & Saarenpää, I., 2015, *Electronic Government: 14th IFIP WG 8.5 International Conference, EGOV 2015, Thessaloniki, Greece, August 30 -- September 2, 2015, Proceedings*. Springer Verlag, Vol. 9248. p. 321-333 13 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9248).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Towards liquid web applications

Mikkonen, T., Systä, K. & Pautasso, C., 2015, *Engineering the Web in the Big Data Era: 15th International Conference, ICWE 2015, Rotterdam, The Netherlands, June 23-26, 2015, Proceedings*. Springer Verlag, p. 134-143 10 p. (Lecture Notes in Computer Science; vol. 9114).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Vision-based trajectories planning for four wheels independently steered mobile robots with maximum allowable velocities

Ziaei, Z., Oftadeh, R. & Mattila, J., 2015, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, Vol. 9287. p. 303-309 7 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9287).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A computational approach to construct a multivariate complete graph invariant

Dehmer, M., Emmert-Streib, F. & Grabner, M., 1 Mar 2014, In : *Information Sciences*. 260, p. 200-208 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Audio-haptic car navigation interface with rhythmic tactons

Pakkanen, T., Raisamo, R. & Surakka, V., 2014, *Haptics: Neuroscience, Devices, Modeling, and Applications - 9th International Conference, EuroHaptics 2014, Proceedings*. Springer Verlag, Vol. 8618. p. 208-215 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8618).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Delayed haptic feedback to gaze gestures

Kangas, J., Rantala, J., Akkil, D., Isokoski, P., Majaranta, P. & Raisamo, R., 2014, *Haptics: Neuroscience, Devices, Modeling, and Applications - 9th International Conference, EuroHaptics 2014, Proceedings*. Springer Verlag, Vol. 8618. p. 25-31 7 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8618).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Does visualization speed up the safety analysis process?

Altarawneh, R., Steiner, M., Taibi, D., Humayoun, S. R. & Liggesmeyer, P., 2014, *Computer Safety, Reliability, and Security - SAFECOMP 2014 Workshops: ASCoMS, DECSoS, DEVVARTS, ISSE, ReSA4CI, SASSUR, Proceedings*. Springer Verlag, Vol. 8696 LNCS. p. 431-443 13 p. (Lecture Notes in Computer Science; vol. 8696).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Do persuasive technologies persuade? - A review of empirical studies

Hamari, J., Koivisto, J. & Pakkanen, T., 2014, *Persuasive Technology - 9th International Conference, PERSUASIVE 2014, Proceedings*. Springer Verlag, Vol. 8462 LNCS. p. 118-136 19 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8462 LNCS).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Evaluation of user experience goal fulfillment: Case remote operator station

Karvonen, H., Koskinen, H., Tokkonen, H. & Hakulinen, J., 2014, *Virtual, Augmented and Mixed Reality: Applications of Virtual and Augmented Reality - 6th International Conference, VAMR 2014, Held as Part of HCI International 2014, Proceedings*. PART 2 ed. Springer Verlag, Vol. 8526 LNCS. p. 366-377 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8526 LNCS, no. PART 2).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Interoperability-related architectural problems and solutions in information systems: A scoping study

Abukwaik, H., Taibi, D. & Rombach, D., 2014, *Software Architecture - 8th European Conference, ECSA 2014, Proceedings*. Springer Verlag, p. 308-323 16 p. (Lecture Notes in Computer Science; vol. 8627).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Low-Power Reconfigurable Miniature Sensor Nodes for Condition Monitoring

Nyländén, T., Boutellier, J., Nikunen, K., Hannuksela, J. & Silvén, O., 2014, In : *International Journal of Parallel Programming*. 43, 1, p. 3-23 21 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Mining frequent closed sequential patterns with non-user-defined gap constraints

Wang, W., Duan, L., Nummenmaa, J., Deng, S., Li, Z., Yang, H. & Tang, C., 2014, In : *Lecture Notes in Computer Science*. 8933, p. 55-70 16 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Multi-view regularized extreme learning machine for human action recognition

Iosifidis, A., Tefas, A. & Pitas, I., 2014, *Artificial Intelligence: Methods and Applications: 8th Hellenic Conference on AI, SETN 2014, Ioannina, Greece, May 15-17, 2014. Proceedings*. Springer Verlag, Vol. 8445. p. 84-94 11 p. (Lecture Notes in Computer Science; vol. 8445 LNCS).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Special Issue on Embedded Computer Systems: Architectures, Modeling and Simulation

McAllister, J., Guevorkian, D., Jeschke, H. & Sima, M., 2014, In : *International Journal of Parallel Programming*. 43, 1

Research output: Contribution to journal > Special issue > Scientific > peer-review

Towards generic embedded multiprocessing for RVC-CAL dataflow programs

Boutellier, J. & Silvén, O., Nov 2013, In : *Journal of Signal Processing Systems*. 73, 2, p. 137-142 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Intuitiveness of vibrotactile speed regulation cues

Lylykangas, J., Surakka, V., Rantala, J. & Raisamo, R., Oct 2013, In : *ACM TRANSACTIONS ON APPLIED PERCEPTION*. 10, 4, 24.

Research output: Contribution to journal > Article > Scientific > peer-review

Integration of dataflow-based heterogeneous multiprocessor scheduling techniques in GNU radio

Zaki, G. F., Plishker, W., Bhattacharyya, S. S., Clancy, C. & Kuykendall, J., Feb 2013, In : *Journal of Signal Processing Systems*. 70, 2, p. 177-191 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A field trial on mobile crowdsourcing of news content: Factors influencing participation

Väätäjä, H., Sirkkunen, E. & Ahvenainen, M., 2013, *Human-Computer Interaction, INTERACT 2013, 14th IFIP TC 13 International Conference, Cape Town, South Africa, September 2-6, 2013, Proceedings, Part III. PART 3* ed. Berlin, Germany: Springer, Vol. 8119 LNCS. p. 54-73 20 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8119 LNCS, no. PART 3).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Automatic hierarchical discovery of quasi-static schedules of RVC-CAL dataflow programs

Boutellier, J., Raulet, M. & Silvén, O., 2013, In : *Journal of Signal Processing Systems*. 71, 1, p. 35-40 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Cell-at-a-time approach to lazy evaluation of dimensional aggregations

Thanisch, P., Nummenmaa, J., Niemi, T. & Niinimäki, M., 2013, *Data Warehousing and Knowledge Discovery - 15th International Conference, DaWaK 2013, Proceedings*. Vol. 8057 LNCS. p. 349-358 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8057 LNCS).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Creating immersive audio and lighting based physical exercise games for schoolchildren

Hakulinen, J., Turunen, M., Heimonen, T., Keskinen, T., Sand, A., Paavilainen, J., Parviainen, J., Yrjänäinen, S., Mäyrä, F., Okkonen, J. & Raisamo, R., 2013, *Advances in Computer Entertainment - 10th International Conference, ACE 2013, Proceedings*. Vol. 8253 LNCS. p. 308-319 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8253 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Designing gesture-based control for factory automation

Heimonen, T., Hakulinen, J., Turunen, M., Jokinen, J. P. P., Keskinen, T. & Raisamo, R., 2013, *Human-Computer Interaction, INTERACT 2013 - 14th IFIP TC 13 International Conference, Proceedings*. PART 2 ed. Vol. 8118 LNCS. p. 202-209 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8118 LNCS, no. PART 2).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Expectation maximization for average reward decentralized POMDPs

Pajarinen, J. & Peltonen, J., 2013, *Machine Learning and Knowledge Discovery in Databases - European Conference, ECML PKDD 2013, Proceedings*. PART 1 ed. Vol. 8188 LNAI. p. 129-144 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8188 LNAI, no. PART 1).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Parameterized scheduling of topological patterns in signal processing dataflow graphs

Wang, L. H., Shen, C. C., Wu, S. & Bhattacharyya, S. S., 2013, In : *Journal of Signal Processing Systems*. 71, 3, p. 275-286 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Voluntary facial activations regulate physiological arousal and subjective experiences during virtual social stimulation

Vanhala, T., Surakka, V., Courgeon, M. & Martin, J. C., Mar 2012, In : *ACM TRANSACTIONS ON APPLIED PERCEPTION*. 9, 1, 1.

Research output: Contribution to journal › Article › Scientific › peer-review

Comparison of extensive vs. confirmation haptic interfaces with two levels of disruptive tasks

Pakkanen, T., Raisamo, R. & Surakka, V., 2012, In : *Lecture Notes in Computer Science*. 7282 LNCS, PART 1, p. 383-394 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Mapping parameterized cyclo-static dataflow graphs onto configurable hardware

Kee, H., Shen, C. C., Bhattacharyya, S. S., Wong, I., Rao, Y. & Kornerup, J., 2012, In : *Journal of Signal Processing Systems*. 66, 3, p. 285-301 17 p.

Research output: Contribution to journal › Article › Scientific › peer-review

NonVisNavi: Non-visual mobile navigation application for pedestrians

Nukarinen, T., Raisamo, R., Pystynen, J. & Mäkinen, E., 2012, In : *Lecture Notes in Computer Science*. 7283 LNCS, PART 2, p. 214-217 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Orientation inquiry: A new haptic interaction technique for non-visual pedestrian navigation

Raisamo, R., Nukarinen, T., Pystynen, J., Mäkinen, E. & Kildal, J., 2012, In : *Lecture Notes in Computer Science*. 7283 LNCS, PART 2, p. 139-144 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Practical realisation and elimination of an ECC-related software bug attack

Brumley, B., Barbosa, M., Page, D. & Vercauteren, F., 2012, *Topics in Cryptology, CT-RSA 2012 - The Cryptographers' Track at the RSA Conference 2012, Proceedings*. Vol. 7178 LNCS. p. 171-186 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7178 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Secure and fast implementations of two involution ciphers

Brumley, B. B., 2012, *Information Security Technology for Applications - 15th Nordic Conference on Secure IT Systems, NordSec 2010, Revised Selected Papers*. Vol. 7127 LNCS. p. 269-282 14 p. (Lecture Notes in Computer Science; vol. 7127 LNCS).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

SymbolChat: Picture-based communication platform for users with intellectual disabilities

Keskinen, T., Heimonen, T., Turunen, M., Rajaniemi, J. P. & Kauppinen, S., 2012, *Computers Helping People with Special Needs - 13th International Conference, ICCHP 2012, Proceedings*. PART 2 ed. Vol. 7383 LNCS. p. 279-286 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7383 LNCS, no. PART 2).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Utilizing haptic feedback in drill rigs

Keskinen, T., Turunen, M., Raisamo, R., Evreinov, G. & Haverinen, E., 2012, In : *Lecture Notes in Computer Science*. 7283 LNCS, PART 2, p. 73-78 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Overview of the MPEG reconfigurable video coding framework

Bhattacharyya, S. S., Eker, J., Janneck, J. W., Lucarz, C., Mattavelli, M. & Raulet, M., May 2011, In : *Journal of Signal Processing Systems*. 63, 2, p. 251-263 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Quasi-static scheduling of CAL actor networks for reconfigurable video coding

Boutellier, J., Lucarz, C., Lafond, S., Gomez, V. M. & Mattavelli, M., May 2011, In : *Journal of Signal Processing Systems*. 63, 2, p. 191-202 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Exploiting statically schedulable regions in dataflow programs

Gu, R., Janneck, J. W., Raulet, M. & Bhattacharyya, S. S., Apr 2011, In : *Journal of Signal Processing Systems*. 63, 1, p. 129-142 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Forward simulation and inverse dipole localization with the lowest order Raviart - Thomas elements for electroencephalography

Pursiainen, S., Sorrentino, A., Campi, C. & Piana, M., Apr 2011, In : *Inverse Problems*. 27, 4, 045003.

Research output: Contribution to journal > Article > Scientific > peer-review

Multimodal and mobile conversational Health and Fitness Companions

Turunen, M., Hakulinen, J., Ståhl, O., Gambäck, B., Hansen, P., Rodríguez Gancedo, M. C., De La Cámara, R. S., Smith, C., Charlton, D. & Cavazza, M., Apr 2011, In : *Computer Speech and Language*. 25, 2, p. 192-209 18 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Some background on dialogue management and conversational speech for dialogue systems

Wilks, Y., Catizone, R., Worgan, S. & Turunen, M., Apr 2011, In : *Computer Speech and Language*. 25, 2, p. 128-139 12 p.

Research output: Contribution to journal > Review Article > Scientific > peer-review

All the news that's fit to read: Finding and recommending news online

Leino, J., Rähkä, K. J. & Finnberg, S., 2011, *Human-Computer Interaction - INTERACT 2011 - 13th IFIP TC 13 International Conference, Proceedings*. PART 3 ed. Vol. 6948 LNCS. p. 169-186 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6948 LNCS, no. PART 3).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A method for text localization and recognition in real-world images

Neumann, L. & Matas, J., 2011, *Computer Vision, ACCV 2010 - 10th Asian Conference on Computer Vision, Revised Selected Papers*. PART 3 ed. Vol. 6494 LNCS. p. 770-783 14 p. (Lecture Notes in Computer Science (including subseries

Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6494 LNCS, no. PART 3).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A model-based schedule representation for heterogeneous mapping of dataflow graphs

Wu, H. H., Shen, C. C., Sane, N., Plishker, W. & Bhattacharyya, S. S., 2011, *2011 IEEE International Symposium on Parallel and Distributed Processing, Workshops and Phd Forum, IPDPSW 2011*. p. 70-81 12 p. 6008822
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A morphological atlas of prostate's zonal anatomy for construction of realistic digital and physical phantoms

Makni, N., Iancu, A., Puech, P., Mordon, S. & Betrouni, N., 2011, *Prostate Cancer Imaging: Image Analysis and Image-Guided Interventions - International Workshop, Held in Conjunction with MICCAI 2011, Proceedings*. Vol. 6963 LNCS. p. 22-34 13 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6963 LNCS).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Bit-sliced binary normal basis multiplication

Brumley, B. & Page, D., 2011, *Proceedings - 20th IEEE Symposium on Computer Arithmetic, ARITH-20*. p. 205-212 8 p. 5992128
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Evaluations of piezo actuated haptic stimulations

Salminen, K., Surakka, V., Lylykangas, J., Rantala, J., Laitinen, P. & Raisamo, R., 2011, *Affective Computing and Intelligent Interaction - 4th International Conference, ACII 2011, Proceedings*. PART 1 ed. Vol. 6974 LNCS. p. 296-305 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6974 LNCS, no. PART 1).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Focused multi-task learning using Gaussian processes

Leen, G., Peltonen, J. & Kaski, S., 2011, *Machine Learning and Knowledge Discovery in Databases - European Conference, ECML PKDD 2011, Proceedings*. PART 2 ed. Vol. 6912 LNAI. p. 310-325 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6912 LNAI, no. PART 2).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Heterogeneous design in functional DIF

Plishker, W., Sane, N., Kiemb, M. & Bhattacharyya, S. S., 2011, *Transactions on High-Performance Embedded Architectures and Compilers IV*. Vol. 6760 LNCS. p. 391-408 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6760 LNCS).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Planar affine rectification from change of scale

Chum, O. & Matas, J., 2011, *Computer Vision, ACCV 2010 - 10th Asian Conference on Computer Vision, Revised Selected Papers*. PART 4 ed. Vol. 6495 LNCS. p. 347-360 14 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6495 LNCS, no. PART 4).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Processing and classification of multichannel remote sensing data

Lukin, V., Ponomarenko, N., Kurekin, A. & Pogrebnyak, O., 2011, *Advances in Soft Computing - 10th Mexican International Conference on Artificial Intelligence, MICAI 2011, Proceedings*. PART 2 ed. Vol. 7095 LNAI. p. 487-498 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7095 LNAI, no. PART 2).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Remote timing attacks are still practical

Brumley, B. & Tuveri, N., 2011, *Computer Security, ESORICS 2011 - 16th European Symposium on Research in Computer Security, Proceedings*. Vol. 6879 LNCS. p. 355-371 17 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6879 LNCS).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The effects of emotionally worded synthesized speech on the ratings of emotions and voice quality

Ilves, M., Surakka, V. & Vanhala, T., 2011, *Affective Computing and Intelligent Interaction - 4th International Conference, ACII 2011, Proceedings*. PART 1 ed. Vol. 6974 LNCS. p. 588-598 11 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6974 LNCS, no. PART 1).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The virtual workplace of a mobile employee - How does Vischer's model function in identifying physical, functional and psychosocial fit?

Hyrkkänen, U. & Nenonen, S., 2011, *Human-Computer Interaction: Towards Mobile and Intelligent Interaction Environments - 14th International Conference, HCI International 2011, Proceedings*. PART 3 ed. Vol. 6763 LNCS. p. 69-75 7 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6763 LNCS, no. PART 3).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Topological patterns for scalable representation and analysis of dataflow graphs

Sane, N., Kee, H., Seetharaman, G. & Bhattacharyya, S. S., 2011, In : *Journal of Signal Processing Systems*. 65, 2, p. 229-244 16 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Using gaze data in evaluating interactive visualizations

Siirtola, H. & Räihä, K. J., 2011, *Human Aspects of Visualization - Second IFIP WG 13.7 Workshop on Human-Computer Interaction and Visualization, HCIV (INTERACT) 2009, Revised Selected Papers*. Vol. 6431 LNCS. p. 127-141 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6431 LNCS).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Consecutive S-box lookups: A timing attack on SNOW 3G

Brumley, B. B., Hakala, R. M., Nyberg, K. & Sovio, S., 1 Dec 2010, *Information and Communications Security - 12th International Conference, ICICS 2010, Proceedings*. p. 171-185 15 p. (Lecture Notes in Computer Science; vol. 6476).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

New results on instruction cache attacks

Acliçmez, O., Brumley, B. B. & Grabher, P., 5 Nov 2010, *Cryptographic Hardware and Embedded Systems, CHES 2010 - 12th International Workshop, Proceedings*. p. 110-124 15 p. (Lecture Notes in Computer Science; vol. 6225).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Conversion algorithms and implementations for koblitz curve cryptography

Brumley, B. B. & Järvinen, K. U., 4 Jan 2010, In : *IEEE Transactions on Computers*. 59, 1, p. 81-92 12 p., 5255226.
Research output: Contribution to journal › Article › Scientific › peer-review

Cache-timing template attacks

Brumley, B. B. & Hakala, R. M., 28 Dec 2009, *Advances in Cryptology - ASIACRYPT 2009 - 15th International Conference on the Theory and Application of Cryptology and Information Security, Proceedings*. p. 667-684 18 p. (Lecture Notes in Computer Science; vol. 5912).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

On modular decomposition of integers

Brumley, B. B. & Nyberg, K., 9 Nov 2009, *Progress in Cryptology - AFRICACRYPT 2009 - Second International Conference on Cryptology in Africa, Proceedings*. p. 386-402 17 p. (Lecture Notes in Computer Science; vol. 5580).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fast point decompression for standard elliptic curves

Brumley, B. B. & Järvinen, K. U., 1 Jul 2008, *Public Key Infrastructure - 5th European PKI Workshop: Theory and Practice, EuroPKI 2008, Proceedings*. p. 134-149 16 p. (Lecture Notes in Computer Science; vol. 5057).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Differential properties of elliptic curves and blind signatures

Brumley, B. B. & Nyberg, K., 1 Dec 2007, *Information Security - 10th International Conference, ISC 2007, Proceedings*. p. 376-389 14 p. (Lecture Notes in Computer Science; vol. 4779).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Koblitz curves and integer equivalents of Frobenius expansions

Brumley, B. B. & Järvinen, K., 1 Dec 2007, *Selected Areas in Cryptography - 14th International Workshop, SAC 2007, Revised Selected Papers*. p. 126-137 12 p. (Lecture Notes in Computer Science; vol. 4876).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Optimization procedure for predicting nonlinear time series based on a non-Gaussian noise model

Emmert-Streib, F. & Dehmer, M., 2007, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Vol. 4827 LNAI. p. 540-549 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4827 LNAI).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Left-to-right signed-bit τ -adic representations of n integers

Brumley, B. B., 1 Jan 2006, *Information and Communications Security - 8th International Conference, ICICS 2006, Proceedings*. Springer Verlag, p. 469-478 10 p. (Lecture Notes in Computer Science; vol. 4307).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A novel stochastic learning rule for neural networks

Emmert-Streib, F., 2006, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Springer Verlag, Vol. 3971 LNCS. p. 414-423 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3971 LNCS).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A neurobiologically motivated model for self-organized learning

Emmert-Streib, F., 2005, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Gelbukh, A., DeAlbornoz, A. & TerashimaMarin, H. (eds.). Springer-Verlag, Berlin, Vol. 3789 LNAI. p. 415-424 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3789 LNAI).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Users' preferences for ubiquitous computing applications at home

Rentto, K., Korhonen, I., Väättä, A., Pekkarinen, L., Tuomisto, T., Cluitmans, L. & Lappalainen, R., 2003, *Lecture Notes in Computer Science: Ambient Intelligence. First European Symposium, EUSAI 2003*. Springer Netherlands, Vol. 2875. p. 384-393 10 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review