

## PERSONAL INFORMATION

**Marcel Kyas**

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🆔 **ORCID** [0000-0003-1018-3413](https://orcid.org/0000-0003-1018-3413)

Gender Male | Date of birth 30 January 1975 | Nationality German

## WORK EXPERIENCE

- since 04/2015 **Lektor (Assistant Professor)**  
Háskólinn í Reykjavík, Menntavegur 1, 102 Reykjavík, Iceland
- 01/2021–06/2022 Reykjavik University's in the project eShip, funded by EEA Grants Call 1.023.2019  
Teacher of “Computer Networks”, “Concurrent and Distributed Programming”, “Cyberphysical Systems”, “Indoor Positioning and Indoor Navigation”, “Internet of Things”, “Undergraduate Research Opportunity”, and “Innovation and Entrepreneurship”  
Researcher at Center for Research into Engineering Software Systems (CRESS).  
Supervising one PhD students. Supervised four MSc projects
- 08/2016 to 2019 Research council member  
2016 Hiring committee
- 03/2009–03/2015 **Professor als Juniorprofessor (Assistant Professor)**  
Freie Universität Berlin, Department of Computer Science, Takustraße 9, 14195 Berlin, Germany  
Teacher of “Concurrent Programming”, “Model Checking”, “Programming in Erlang”, “Programming in Java”, “Proseminar ‘Technical Computer Science’”, “Research Seminar ‘Embedded Systems’”, “Seminar ‘Hard Real-Time Systems’”, “Seminar ‘Type Systems’”, and “Software Project”  
Supervised and graduated 6 PhD students and 15 MSc theses
- 10/2011–09/2013 Managing director
- 04/2011–03/2015 substitute representative on the Ph.D. examination board
- 10/2011–03/2015 responsible for the development of the Bachelor program
- 10/2013–03/2015 member of the commission for teaching (Kommission für Lehrangelegenheiten) at the academic senate
- 01–02/2013 Parental leave
- 08/2009–10/2011 board of teaching evaluation
- 10/2009–09/2013 member of the institute's council
- 04/2011–03/2013 member of the department's council
- 08/2006–02/2009 **Researcher**  
Department of Informatics, University of Oslo, Norway  
Member of the *precise modelling and analysis* group participating in the EU project IST-33826 *CREDO: Modeling and analysis of evolutionary structures for distributed services*
- 01/2001–04/2006 **Doktorand (doctoral researcher)**

Christian-Albrechts-Universität zu Kiel, Germany

Participated in the EU project IST-2001-33522 Project “Omega”, DFG-Project “Mobi-J”, DFG-Project “SFC-Check”

taught laboratory courses in software engineering

08–12/2001, 10–12/2000 **Nebenamtlicher Dozent (Lecturer)**

FH Nordakademie, Hochschule der Wirtschaft, Köllner Chaussee 11, 25337 Elmshorn, Germany

taught *algorithms and data structures* at undergraduate level

EDUCATION

04/2006 **Philosophical Doctor**

University of Leiden, The Netherlands

Dissertation: “Verifying OCL Specifications of UML Models: Tool Support and Compositionality”

10/1995–11/2000 **Diplom-Informatiker**

Christian-Albrechts-Universität zu Kiel, Germany

Diploma thesis: “Verifikation parametrisierter Netzwerke durch Abstraktion”

06/1994 **General qualification for university entrance**

Johannes-Brahms-Schule, Pinneberg

LANGUAGE SKILLS

Mother tongue German

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Icelandic	A2	A2	A2	A2	A2
Norwegian	B2	C1	B2	B2	B2
Norsk for utlendinger trinn 3, Universitetet i Oslo					

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user  
[Common European Framework of Reference for Languages](#)

PROFESSIONAL MEMBERSHIPS

since 2011 ACM  
 since 2011 IEEE  
 2006–2009 Forskerforbundet  
 2001–2014 Gesellschaft für Informatik (GI)

SUPERVISION

Doctoral Students

08/2020– Joshua David Springer, Reykjavik University  
 10/2013–12/2019 Simon Schmitt, Freie Universität Berlin  
 10/2013–11/2015 Mohammed Fal Sadikin, Freie Universität Berlin  
 10/2010–03/2015 Yang Yuan, Freie Universität Berlin  
 10/2010–12/2014 Zhao Yubin, Freie Universität Berlin  
 12/2011–04/2014 Heiko Will, Freie Universität Berlin  
 12/2011–04/2014 Thomas Hillebrandt, Freie Universität Berlin

MSc Students

- 06/2020 Joshua David Springer, "Autonomous landing of a multicopter using computer vision"
- 06/2020 James Thomas Robb, "Temporal isolation of latency-sensitive tasks in real-time nested locking"
- 02/2019 Einar Pétursson, "NB-IoT Tracking device"
- 02/2018 Caroline Butschek, "Using Autocorrelations to Detect Potential Side-Channels"
- 03/2015 Gero Leinemann, "Promises in FastR"
- 02/2014 Oliver Kant, "Entwicklung und Evaluierung von Algorithmen zur pfadbasierten Messdaten Ausgabe"
- 12/2013 Gerrit Rindermann, "Approaches for the Development of an Indoor Localisation System for Mobile Phones"
- 10/2013 Simon Schmitt, "Aufbau und Evaluation eines virtuellen Testbeds zur Indoorlokalisierung in drahtlosen Sensornetzen"
- 05/2013 Zhihai Ji, "Auswertung von Zugehörigkeitsfunktionen für die Positionsbestimmung innerhalb von Gebäuden"
- 05/2013 Mathias Hecht, "Fehlerursachenanalyse in dynamischen Prozessgraphen"
- 04/2013 Eric Engel, "Erhebung, Verarbeitung und Evaluation von Messdaten aus Sensornetzwerken zur passiven Indoor-Lokalisierung"
- 04/2013 Lars Reichelt, "Passive Indoor-Lokalisierung mittels Funk-Tomographie"
- 04/2013 Ronald Günter, "Messung und Bewertung des Energieverbrauchs eines Raspberry Pi für die Nutzung in WSN"
- 04/2013 Anne Augustin, "Integration von Architekturmodellen in einem agilen Softwareentwicklungsprozess"
- 09/2012 Jonathan Guntermann, "Entwurf und Diskussion von Fehlermodellen für den LS<sup>2</sup> Simulator"
- 05/2012 Ilias Mirza, "Laufzeitanalyse batteriebetriebener Geräte modelliert als hybride Automaten"
- 01/2012 Emilian Stoikov, "Model-based Testing of Fiscal Printers"
- 04/2011 AiQuan Li, "Software-Fabrik für drahtlose Sensornetzwerke: Evaluation der Software-Fabrik Flow"
- 01/2011 Frederik Kühn, "Ermittlung der Dienstgüte eines verteilten Navigationssystems mit formalen Modellen."
- 2008 Jasmin Christian Blanchette, "Verification of Assertions in Creol Programs"
- 2005 Jens Schönborn, "Formal Semantics of UML 2.0 Behavioral State Machines", University of Kiel

## PUBLICATIONS

- 1 Kurniawan, Agur and Marcel Kyas (2022). "Machine Learning Models for LoRaWAN IoT Anomaly Detection". In: *The 2022 International Conference on Advanced Computer Science and Information Systems (ICACSIS)*. Accepted. Online, Depok, Indonesia: IEEE Press.
- 2 Reiser, Hans P. and Marcel Kyas, eds. (Nov. 2022). *Secure IT Systems — 27th Nordic Conference, NordSec*. Vol. 13700. Lecture Notes in Computer Science. Reykjavik, Iceland: Springer-Verlag.
- 3 Springer, Joshua and Marcel Kyas (Dec. 2022a). "Autonomous Precision Drone Landing with Fiducial Markers and a Gimbal-Mounted Camera for Active Tracking". In: *IEEE International Conference on Robotic Computing (IRC 2022)*. Accepted. Naples, Italy.
- 4 — (2022b). *Evaluation of April Tag and WhyCode Fiducial Systems for Autonomous Precision Drone Landing with a Gimbal-Mounted Camera*. DOI: 10.48550/ARXIV.2203.10180. URL: <https://arxiv.org/abs/2203.10180>.
- 5 Foley, Joseph T. and Marcel Kyas (2021a). "Axiomatic Software Engineering". In: *ICAD 2021: 4th International Conference on Axiomatic Design*. IOP Conf. Series: Materials Science and Engineering. Lisbon, Portugal: IOP Publishing, pp. 1–14. DOI: 10.1088/1757-899X/1174/1/012025.
- 6 — (2021b). "Choosing the Right D For Design". In: *The 17th International CDIO Conference*. Ed. by Jens Bennesen, Kristina Edström, María Sigríður Guðjónsðóttir, Ingunn Sæmundsdóttir, Natha Kuptasthien, Janne Roslöf, and Angkee Sripakagorn. Bangkok, Thailand, pp. 44–51. URL: <http://cuir.car.chula.ac.th/handle/123456789/74493>.

- 7 Kyas, Marcel, Joshua David Springer, Jan Tore Petersen, and Valentina Chkoniya (2021). "Data Analysis in the Shipping Industry: eShip Case Study – Problem Statement". In: *Data Science and Artificial Intelligence in Business and Industry*. Ed. by Valentina Chkoniya. IGI Global. Chap. 18, pp. 381–400. DOI: 10.4018/978-1-7998-6985-6.ch018.
- 8 Lárusdóttir, Marta Kristin and Marcel Kyas (2020). "Assessing the Performance of Agile Teams". In: *Beyond Interactions: INTERACT 2019 IFIP TC 13 Workshops, Paphos, Cyprus, September 2–6, 2019, Revised Selected Papers*. Ed. by José Abdellour, Nocera Antigoni Parmaxi, Marco Winckler, Fernando Loizides, Carmelo Ardito, Ganesh Bhutkar, and Peter Dannenmann. Vol. 11930. Lecture Notes in Computer Science. Springer-Verlag, pp. 71–83. DOI: 10.1007/978-3-030-46540-7\_8.
- 9 Kurniawan, Agus and Marcel Kyas (2019a). "A Privacy-Preserving Sensor Aggregation Model Based Deep Learning in Large Scale Internet of Things Applications". In: *IEEE 17th World Symposium on Applied Machine Intelligence and Informatics*. Herl'any, Slovakia: IEEE Press. DOI: 10.1109/SAMI.2019.8782758.
- 10 — (2019b). "Securing Machine Learning Engines in IoT Applications with Attribute-Based Encryption". In: *IEEE International Conference on Intelligence and Security Informatics (ISI)*. Shenzhen, China: IEEE Press. DOI: 10.1109/ISI.2019.8823199.
- 11 Lárusdóttir, Marta and Marcel Kyas (2019). "Selecting the Best Agile Team for Developing a Web Service". In: *Handling Security, Usability, User Experience and Reliability in User-Centered Development Processes*. IFIP WG 13.2 & WG 13.5. Paphos, Cyprus.
- 12 Schmitt, Simon, Larissa Zech, Katinka Wolter, Thomas Willemsen, Harald Sternberg, and Marcel Kyas (2017). "Fast Routing Graph Extraction from Floor Plans". In: *Indoor Positioning and Indoor Navigation (IPIN), 2017 International Conference on*. Sapporo, Japan: IEEE, pp. 1–8. DOI: 10.1109/IPIN.2017.8115868.
- 13 Schmitt, Simon, Larissa Zech, Thomas Willemsen, Harald Sternberg, and Marcel Kyas (2016). "Conditional Erosion to Estimate Routing Graph out of Floor Plans". In: *Indoor Positioning and Indoor Navigation (IPIN), 2016 International Conference on*. Alca de Henares, Spain: IEEE, pp. 1–8. DOI: 10.1109/IPIN.2016.7743602.
- 14 Adler, Stephan, Simon Schmitt, Katinka Wolter, and Marcel Kyas (Oct. 2015). "A Survey of Experimental Evaluation in Indoor Localization Research". In: *Indoor Positioning and Indoor Navigation (IPIN), 2015 International Conference on*. Banff, AB: IEEE, pp. 1–10. DOI: 10.1109/IPIN.2015.7346749.
- 15 Kurniawan, Agus and Marcel Kyas (Apr. 2015). "A trust-model Bayesian decision theory in large scale Internet of Things". In: *Tenth IEEE International Conference on Intelligent Sensors, Sensor Networks and Information Processing, ISSNIP 2015, Singapore, April 7-9, 2015*. Singapore: IEEE Press, pp. 1–6. DOI: 10.1109/ISSNIP.2015.7106964.
- 16 Sadikin, Mohammad Fal and Marcel Kyas (Mar. 2015a). "Efficient Key Management System for Large-scale Smart RFID Applications". In: *Proceedings of the 1st International Conference on Industrial Networks and Intelligent Systems*. Tokyo, Japan: IEEE Press, pp. 126–132. DOI: 10.4108/icst.iniscom.2015.258316.
- 17 — (Sept. 2015b). "Light-weight Key Management Scheme for Active RFID Applications". In: *EAI Endorsed Transactions on Industrial Networks and Intelligent Systems* 15.5, e4. DOI: 10.4108/eai.17-9-2015.150286.
- 18 Zhao, Yubin, Yuan Yang, and Marcel Kyas (2015). "Adaptive Range-based Nonlinear Filters for Wireless Indoor Positioning System using Dynamic Gaussian Model". In: *Vehicular Technology, IEEE Transactions on* 64.9, pp. 4282–4291. DOI: 10.1109/TVT.2014.2364045.
- 19 Adler, Stefan, Simon Schmitt, and Marcel Kyas (Oct. 2014a). "Device-Free Indoor Localisation Using Radio Tomography Imaging In 800/900 MHz Band". In: *2014 International Conference on Indoor Positioning and Indoor Navigation*. Busan: IEEE Press, pp. 544–553. DOI: 10.1109/IPIN.2014.7275527.

- 20 Adler, Stefan, Simon Schmitt, Yuan Yang, Zhao Yubin, and Marcel Kyas (Oct. 2014). "Experimental Evaluation of Indoor Localization Algorithms". In: *2014 International Conference on Indoor Positioning and Indoor Navigation*. Busan: IEEE Press, pp. 291–299. DOI: 10.1109/IPIN.2014.7275495.
- 21 Adler, Stephan, Simon Schmitt, and Marcel Kyas (2014b). "Experimental Evaluation of the Spatial Error Distribution of Indoor Localization Algorithms". In: *3rd International Conference and Exhibition on Ubiquitous Positioning, Indoor Navigation and Location Based Services*, pp. 44–53. DOI: 10.1109/UPINLBS.2014.7033709.
- 22 — (2014c). "Path Loss and Multipath Effects in a Real World Indoor Localization Scenario". In: *11th Workshop on Positioning, Navigation and Communication*. IEEE Press, pp. 1–7. DOI: 10.1109/WPNC.2014.6843300.
- 23 Sadikin, Mohammad Fal and Marcel Kyas (July 2014a). "Efficient Security and Privacy Protection for Emerging Smart RFID Communication". In: *International Journal of Networked and Distributed Computing* 2.3, pp. 156–165. DOI: 10.2991/ijndc.2014.2.3.5.
- 24 Sadikin, Mohammed Fal and Marcel Kyas (2014b). "IMAKA-Tate: Secure and efficient privacy preserving for Indoor Positioning applications". In: *Smart Communications in Network Technologies (SaCoNeT), 2014 International Conference on*. IEEE Press, pp. 1–6. DOI: 10.1109/SaCoNeT.2014.6867775.
- 25 — (2014c). "RFID-tate: Efficient security and privacy protection for active RFID over IEEE 802.15.4". In: *Information, Intelligence, Systems and Applications, IISA 2014, The 5th International Conference on*. IEEE Press, pp. 335–340. DOI: 10.1109/IISA.2014.6878787.
- 26 — (2014d). "Security and Privacy Protocol for Emerging Smart RFID Applications". In: *Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD), 2014 15th IEEE/ACIS International Conference on*. IEEE Press, pp. 1–7. DOI: 10.1109/SNPD.2014.6888694.
- 27 Schmitt, Simon, Stefan Adler, and Marcel Kyas (Oct. 2014). "The Effects of Human Body Shadowing in RF-based Indoor Localization". In: *2014 International Conference on Indoor Positioning and Indoor Navigation*. Busan: IEEE Press, pp. 307–313. DOI: 10.1109/IPIN.2014.7275497.
- 28 Yang, Yuan, Yubin Zhao, and Marcel Kyas (2014a). "GeoF: A Geometric Bayesian Filter for Indoor Position Tracking in Mixed LOS/NLOS Conditions". In: *11th Workshop on Positioning, Navigation and Communication*. IEEE Press, pp. 1–6. DOI: 10.1109/WPNC.2014.6843295.
- 29 — (July 2014b). "RBGF: Recursively Bounded Grid-Based Filter for Indoor Position Tracking Using Wireless Networks". In: *IEEE Communication Letters* 18.7, pp. 1234–1237. DOI: 10.1109/LCOMM.2014.2315632.
- 30 — (2014c). "Recursive Bayesian Estimation using A Topological Map for Indoor Position Tracking". In: *Vehicular Technology Conference (VTC Spring), 2014 IEEE 77th*. IEEE Press, pp. 1–5. DOI: 10.1109/VTCspring.2014.7023069.
- 31 Zhao, Yubin, Yuan Yang, and Marcel Kyas (2014a). "An Adaptive Likelihood Fusion Method using Dynamic Gaussian Model for Indoor Target Tracking". In: *2014 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, pp. 7993–7997. DOI: 10.1109/ICASSP.2014.6855157.
- 32 — (2014b). "Cramer-Rao Lower Bound Analysis for Wireless Localization Systems using Prior Information". In: *11th Workshop on Positioning, Navigation and Communication*. IEEE Press, pp. 1–6. DOI: 10.1109/WPNC.2014.6843296.
- 33 Adler, Stephan, Simon Schmitt, Heiko Will, Thomas Hillebrandt, and Marcel Kyas (Oct. 2013). "Virtual Testbed for Indoor Localisation". In: *2013 International Conference on Indoor Positioning and Indoor Navigation*. Montbéliard-Belfort: IEEE Press, pp. 1–8. DOI: 10.1109/IPIN.2013.6817880.

- 34 Hillebrandt, Thomas, Heiko Will, and Marcel Kyas (2013a). "Quantitative and Spatial Evaluation of Distance-based Localization Algorithms". In: *Progress in Location-Based Services*. Ed. by Jukka M. Krisp. Lecture Notes in Geoinformation and Cartography. Heidelberg: Springer-Verlag, pp. 173–194. DOI: 10.1007/978-3-642-34203-5\_10.
- 35 — (2013b). "The Membership Degree Min-Max Localisation Algorithm". Accepted for publication in *Journal of Global Positioning Systems*.
- 36 Kyas, Marcel (2013). "High-Precision Position Estimation in Indoor Environments". In: *2013 International Conference on Advanced Computer Science and Information Systems*. Invited paper. IEEE Press. DOI: 10.1109/ICACSIS.2013.6761545.
- 37 Kyas, Marcel, Yubin Zhao, and Heiko Will (Oct. 2013). "Relevance and Interpretation of the Cramér-Rao Lower Bound for Localisation Algorithms". In: *2013 International Conference on Indoor Positioning and Indoor Navigation*. Short paper. Montbéliard-Belfort: IEEE Press.
- 38 Schmitt, Simon, Heiko Will, Thomas Hillebrandt, and Marcel Kyas (2013). "A virtual indoor localization testbed for Wireless Sensor Networks". In: *Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2013 10th Annual IEEE Communications Society Conference on*. IEEE Press, pp. 239–241. DOI: 10.1109/SAHCN.2013.6644985.
- 39 Yang, Yuan, Yubin Zhao, and Marcel Kyas (2013a). "A Non-parametric Modeling of Time-of-flight Ranging Error for Indoor Network Localization". In: *IEEE Global Communications Conference (GLOBECOM), Atlanta, GA, USA, December 2013*. IEEE Press. DOI: 10.1109/GLOCOM.2013.6831069.
- 40 — (2013b). "A statistics-based least squares (SLS) method for non-line-of-sight error of indoor localisation". In: *Wireless Communications and Networking Conference (WCNC), 2013 IEEE*. IEEE Press, pp. 2299–2304. DOI: 10.1109/WCNC.2013.6554919.
- 41 — (Oct. 2013c). "Grid-scan Maximum Likelihood Estimation with A Bias Function for Indoor Network Localization". In: *2013 International Conference on Indoor Positioning and Indoor Navigation*. Montbéliard-Belfort: IEEE Press, pp. 1–9. DOI: 10.1109/IPIN.2013.6817873.
- 42 — (2013d). "Weighted Least-Squares by Bounding-Box (B-WLS) for NLOS Mitigation of Indoor Localization". In: *Vehicular Technology Conference (VTC Spring), 2013 IEEE 77th*. IEEE Press, pp. 1–5. DOI: 10.1109/VTCspring.2013.6692811.
- 43 Zhao, Yubin, Yuan Yang, and Marcel Kyas (Oct. 2013a). "2D Geometrical Performance for Localization Algorithms from 3D Perspective". In: *2013 International Conference on Indoor Positioning and Indoor Navigation*. Montbéliard-Belfort: IEEE Press. DOI: 10.1109/IPIN.2013.6817907.
- 44 — (Oct. 2013b). "Context Aware Adaptive Indoor Localization using Particle Filter". In: *2013 International Conference on Indoor Positioning and Indoor Navigation*. Short paper. Montbéliard-Belfort: IEEE Press.
- 45 — (2013c). "Likelihood adaptation of particle filter for target tracking using wireless sensor networks". In: *IEEE Global Communications Conference (GLOBECOM), Atlanta, GA, USA, December 2013*. IEEE Press, pp. 3323–3328. DOI: 10.1109/GLOCOM.2013.6831585.
- 46 — (2013d). "PSG-DPF: Distributed Particle Filter Using Pairwise Selective Gossiping for Wireless Sensor Network". In: *Vehicular Technology Conference (VTC Spring), 2013 IEEE 77th*. IEEE Press, pp. 1–5. DOI: 10.1109/VTCspring.2013.6692724.
- 47 Schmitt, Simon, Heiko Will, Benjamin Aschenbrenner, Thomas Hillebrandt, and Marcel Kyas (2012). "A Reference System for Indoor Localization Testbeds". In: *2012 International Conference on Indoor Positioning and Indoor Navigation*. Sydney, NSW, Australia: IEEE Press, pp. 1–8. DOI: 10.1109/IPIN.2012.6418865.

- 48 Will, Heiko, Thomas Hillebrandt, and Marcel Kyas (2012a). "The FU Berlin Parallel Lateration-Algorithm Simulation and Visualization Engine". In: *9th Workshop on Positioning, Navigation and Communication*. IEEE Press, pp. 131–136. DOI: 10.1109/WPNC.2012.6268752.
- 49 — (2012b). "The Geo-n Localization Algorithm". In: *2012 International Conference on Indoor Positioning and Indoor Navigation*. Sydney, NSW, Australia: IEEE Press, pp. 1–10. DOI: 10.1109/IPIN.2012.6418867.
- 50 — (2012c). "Wireless Sensor Networks in Emergency Scenarios: The FeuerWhere Deployment". In: *Proceedings of the 1st ACM international workshop on Sensor-Enhanced Safety and Security in Public Spaces*. Ed. by Emmanuel Baccelli, Thomas C. Schmidt, and Matthias Wählisch. IEEE Press, pp. 9–14. DOI: 10.1145/2248356.2248360.
- 51 Will, Heiko, Thomas Hillebrandt, Yang Yuan, Zhao Yubin, and Marcel Kyas (2012). "The Membership Degree Min-Max Localization Algorithm". In: *2nd International Conference and Exhibition on Ubiquitous Positioning, Indoor Navigation and Location Based Services*, pp. 1–10. DOI: 10.1109/UPINLBS.2012.6409781.
- 52 Yang, Yuan, Matthias Wählisch, Yubin Zhao, and Marcel Kyas (2012). "RAID the Wireless Sensor Networks: Packet-based Reliable Cooperative Diversity". In: *IEEE International Conference on Communications*. IEEE Press, pp. 371–375. DOI: 10.1109/ICC.2012.6364008.
- 53 Zhao, Yubin, Yuan Yang, and Marcel Kyas (2012). "Dynamic Searching Particle Filter Scheme for Indoor Localization in Wireless Sensor Network". In: *9th Workshop on Positioning, Navigation and Communication*. IEEE Press, pp. 65–70. DOI: 10.1109/WPNC.2012.6268740.
- 54 Yubin, Zhao and Marcel Kyas (Sept. 2011). "Comparing Centralized Kalman Filter Schemes for Indoor Positioning in Wireless Sensor Network". In: *International Conference on Indoor Positioning and Indoor Navigation (IPIN)*. Guimarães: IEEE Press, pp. 1–10. DOI: 10.1109/IPIN.2011.6071949.
- 55 Grabe, Immo, Mohammad Mahdi Jaghoori, Bernhard Aichernig, Tobias Blechmann, Frank de Boer, Andreas Griesmayer, Einar Broch Johnsen, Joachim Klein, Sascha Klüppelholz, Marcel Kyas, Wolfgang Leister, Rudolf Schlatter, Andries Stam, Martin Steffen, Simon Tschirner, Liang Xuedong, and Wang Yi (2010). "The Credo Methodology (Extended Version)". In: *Formal Methods for Components and Objects. 8th International Symposium, FMCO 2009, Eindhoven, The Netherlands, November 4-6, 2009. Revised Selected Papers*. Ed. by Frank S. de Boer, Marcello M. Bonsangue, Stefan Hallerstede, and Michael Leuschel. Vol. 6286. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 41–69. DOI: 10.1007/978-3-642-17071-3\_3.
- 56 — (2009). "Credo Methodology. Modelling and Analyzing a Peer-to-Peer System in Credo". In: *3rd International Workshop on Harnessing Theories for Tool Support in Software, TTSS 2009, Kuala Lumpur, Malaysia, August 17, 2009, Proceedings*. Ed. by Einar Broch Johnsen and Volker Stolz. Vol. 266. Electronic Notes in Theoretical Computer Science. Amsterdam: Elsevier, pp. 33–48. DOI: 10.1016/j.entcs.2010.08.047.
- 57 Grabe, Immo, Marcel Kyas, Martin Steffen, and Arild Braathen Torjusen (2009). "Executable Interface Specifications for Testing Asynchronous Creol Components". In: *FSEN 2009: 3rd International Conference on Fundamentals of Software Engineering, Kish Island, Persian Gulf, Iran, April 15–17, Proceedings*. Ed. by Farad Arbab and Marjan Sirjani. Vol. 5961. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 324–339. DOI: 10.1007/978-3-642-11623-0\_19.
- 58 Johnsen, Einar Broch, Marcel Kyas, and Ingrid Chieh Yu (2009). "Dynamic Classes: Modular Asynchronous Evolution of Distributed Concurrent Objects". In: *FM 2009: Formal Methods, Second World Congress, Eindhoven, The Netherlands, November 2–6, 2009, Proceedings*. Ed. by Ana Cavalcanti and Dennis Dams. Vol. 5850. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 596–611. DOI: 10.1007/978-3-642-05089-3\_38.

- 59 Kyas, Marcel and Einar Broch Johnsen (2009). "A Real-Time Extension of Creol for Modelling Biomedical Sensors". In: *Formal Methods for Components and Objects, 7th International Symposium, FMCO 2008, Sophia Antipolis, France, October 21-23, 2008, Revised Lectures*. Ed. by Frank S. de Boer, Marcello Bonsangue, and Eric Madelain. Vol. 5751. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 42–60. DOI: 10.1007/978-3-642-04167-9\_3.
- 60 Schlatte, Rudolf, Bernhard Aichernig, Andreas Griesmayer, and Marcel Kyas (2009). "Resource Modelling for Timed Creol Models". In: *3rd International Workshop on Harnessing Theories for Tool Support in Software, TTSS 2009, Kuala Lumpur, Malaysia, August 17, 2009, Proceedings*. Ed. by Einar Broch Johnsen and Volker Stolz. Vol. 266. Electronic Notes in Theoretical Computer Science. Amsterdam: Elsevier, pp. 63–75. DOI: 10.1016/j.entcs.2010.08.049.
- 61 Schönborn, Jens and Marcel Kyas (2009). "Refinement Patterns for Hierarchical UML State Machines". In: *FSEN 2009: 3rd International Conference on Fundamentals of Software Engineering, Kish Island, Persian Gulf, Iran, April 15–17, Proceedings*. Ed. by Farad Arbab and Marjan Sirjani. Vol. 5961. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 371–386. DOI: 10.1007/978-3-642-11623-0\_22.
- 62 Johnsen, Einar Broch, Jasmin Christian Blanchette, Marcel Kyas, and Olaf Owe (2008). "Intra-Object versus Inter-Object: Concurrency and Reasoning in Creol". In: *2nd International Workshop on Harnessing Theories for Tool Support in Software, TTSS 2008, Istanbul, Turkey, August 30–31, 2008, Proceedings*. Ed. by Jianhua Zhao and Volker Stolz. Vol. 243. Electronic Notes in Theoretical Computer Science. Amsterdam: Elsevier, pp. 89–103. DOI: 10.1016/j.entcs.2009.07.007.
- 63 Johnsen, Einar Broch, Olaf Owe, Joakim Bjørk, and Marcel Kyas (2008). "An Object-Oriented Component Model for Heterogeneous Nets". In: *Formal Methods for Components and Objects (FMCO 2007)*. Ed. by Frank S. de Boer and Gilles Barthe. Vol. 5382. Lecture Notes in Computer Science. Heidelberg: Springer-Verlag, pp. 257–279. DOI: 10.1007/978-3-540-92188-2\_11.
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