

# Dipl.-Ing. Dr. techn. Martin Pirker

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Since 2015 full-time senior researcher at [St. Pölten University of Applied Sciences](#), member of the [Institute of IT Security Research](#).

## Journey

- 2020 - Senior researcher at the [Josef Ressel Center for Blockchain Technologies and Security Management](#), [St. Pölten University of Applied Sciences](#)
- 2015 - 2020 Senior researcher at the [Josef Ressel Center for Unified Threat Intelligence on Targeted Attacks](#), [St. Pölten University of Applied Sciences](#)
- 2005 - 2014 Researcher at the [Secure and Correct Systems \(SCoS\) Group](#) at the [Institute for Applied Information Processing and Communications \(IAIK\)](#), [Graz University of Technology](#)

## Major Projects (selection)

- 2020 - BLOCKCHAINS (CDG)  
[Josef Ressel Center for Blockchain Technologies and Security Management](#)
- 2015 - 2020 TARGET (CDG)  
[Josef Ressel Center for Unified Threat Intelligence on Targeted Attacks](#)
- 2013 - 2014 DALIA (EU AAL, FFG benefit)  
“assistant for DAily LIfe Activities at Home”
- 2012 - 2014 STANCE (EU-FP7-ICT)  
“A Source code analysis Toolbox for software security AssuraNCE”
- 2010 - 2013 SEPIA (EU-FP7-ICT)  
“Secure, Embedded Platform with advanced Process IsolAtion”
- 2009 - 2011 acTvSM (FFG FIT-IT)  
“advanced cryptographic trusted virtual security module”
- 2007 - 2009 TOPAS (FFG FIT-IT)  
“Trust Oriented Platform for Advanced Security”
- 2005 - 2009 OpenTC (EU-FP6-IST)  
“Open Trusted Computing”

## Community Interaction (selection)

- Presentation of research results and/or participant at international conferences, workshops, industry meetings and summer/winter schools:
  - ANSEC 2012 (Int. Workshop on Anonymity and Security Aspects of Emb. Sys.)
  - ARES 2018, 2021 (Int. Conf. on Availability, Reliability and Security)
  - CLOSER 2012 (Int. Conf. on Cloud Computing and Services Science)
  - COINS Winterschool 2018 (Research School of Computer and Information Sec.)
  - ETISS 2006-2011, 2013 (European Trusted Infrastructure Summer/Systems School)
  - FARES 2021 (Workshop on Frontiers in Availability, Reliability and Security)
  - FTC 2008 (Int. Conf. Future of Trust in Computing)
  - InTrust 2012 (Int. Conf. on Trusted Systems)
  - ICSSA 2016, 2017 (Int. Conf. on Software Security and Assurance)
  - LinuxTag Berlin 2008, 2010
  - PETS 2010, 2012 (Privacy Enhancing Technologies Symposium)
  - Privacy and Identity, Trust and Reputation Mechanisms Summer School 2012
  - PrivacyWeek Vienna 2017-2021
  - sec4dev 2019 (Security for Software Developers)
  - TRUST 2008-2010, 2012-2013 (Int. Conf. on Trust & Trustworthy Computing)
  - TrustBus 2012 (Int. Conf. on Trust, Privacy & Security in Digital Business)
  - Vienna Data Science Group 2016, 2019-2020
  - WeAreDevelopers AI Congress 2019
  - WASH 2013 (Workshop on Web Applications and Secure Hardware)
- University lecturer and/or tutor for:
  - Computer- and Communication Networks, Computer Networks and Computer Organisation, Data Science, Data Analysis in Python, Operating Systems, Pattern Matching and Machine Learning, Security and Privacy in the Cloud, Trusted Computing
- Was member of organisation team for ETISS 2009 & 2013.
- Was academic liaison/observer of the standardisation committee/process of the Trusted Computing Group ([TCG](#)).

## Publications (selection)

2021

**Martin Pirker**, Ernst Piller; *Obstacles and Challenges in Transforming Applications for Distributed Data Ledger Integration*; Proceedings of the 16th International Workshop on Frontiers in Availability, Reliability and Security (FARES), held in conjunction with the International Conference on Availability, Reliability and Security (ARES), ACM ([link](#))

Oliver Eigner, Sebastian Eresheim, Peter Kieseberg, Lukas Daniel Klausner, **Martin Pirker**, Torsten Priebe, Simon Tjoa; *Towards Resilient Artificial Intelligence: Survey and Research Issues*; Workshop on Resilient Artificial Intelligence (RAI), IEEE International Conference on Cyber Security and Resilience (IEEE CSR), IEEE (to be published)

Jakob Hagl, Oliver Mann, **Martin Pirker**; *Securing the Linux Boot Process – From Start to Finish*; Proceedings of the 7th International Conference on Information Systems Security and Privacy (ICISSP), SCITEPRESS ([link](#))

2020

Julian Lindenhofer, Rene Offenthaler, **Martin Pirker**; *A Curious Exploration of Malicious PDF Documents*; Proceedings of the 6th International Conference on Information Systems Security and Privacy (ICISSP), SCITEPRESS ([link](#))

2019

Thomas Pipek, **Martin Pirker**; *Revisiting the Challenges of Input Parsing for Robust and Secure Software*; Proceedings of the 5th International Conference on Software Security and Assurance (ICSSA), IEEE ([link](#))

2018

**Martin Pirker**, Patrick Kochberger, Stefan Schwandter; *Behavioural Comparison of Systems for Anomaly Detection*; Proceedings of the 13th International Conference on Availability, Reliability and Security (ARES), ACM ([link](#))

2017

Martin Valicek, Gregor Schramm, **Martin Pirker**, Sebastian Schrittwieser; *Creation and Integration of Remote High Interaction Honeypots*; Proceedings of the 3rd International Conference on Software Security and Assurance (ICSSA), IEEE ([link](#))

2016

**Martin Pirker**, Andreas Nusser; *Assessment of Server State via Inter-Clone Differences*; Proceedings of the 2nd International Conference on Software Security and Assurance (ICSSA), IEEE ([link](#))

**Martin Pirker** Andreas Nusser; *A Work-Flow for Empirical Exploration of Security Events*; First Workshop on Empirical Research Methods in Information Security (ERMIS), Published in WWW'16 Companion, ACM ([link](#))

2015

**Martin Pirker**; *On Attestable and Trusted Services for the Cloud*; PhD Thesis

**2014**

Zoltán Balogh, Emil Gatjal, Ladislav Hluchý, Ronald Tögl, **Martin Pirker**, Daniel Hein; *Agent-Based Cloud Resource Management for Secure Cloud Infrastructures*; Journal Computing and Informatics, Vol. 33, 2014, No. 6 ([link](#))

Viktoria Pammer-Schindler, Hermann Stern, Stefan Edler, Daniel Hein, **Martin Pirker**, Roderick Paul Bloem, Alfred Wertner; *Security Concepts for a Distributed Architecture for Activity Logging and Analysis*; Proceedings of the 14th International Conference on Knowledge Technologies and Data-driven Business (i-KNOW) ([link](#))

**2013**

Stefan Kraxberger, Ronald Tögl, **Martin Pirker**, Elisa Pintado Guijarro, Guillermo Garcia Millan; *Trusted Identity Management for Overlay Networks*; Information Security Practice and Experience, 9th International Conference (ISPEC); LNCS 7904, Springer Verlag ([link](#))

Ronald Tögl, Johannes Winter, **Martin Pirker**; *A Path Towards Ubiquitous Protection of Media*; Proceedings of the Workshop on Web Applications and Secure Hardware (WASH); CEUR Workshop Proceedings ([link](#))

**Martin Pirker**, Johannes Winter; *Semi-Automated Prototyping of a TPM v2 Software and Hardware Simulation Platform*; Proceedings of the 6th International Conference on Trust & Trustworthy Computing (TRUST); LNCS 7904, Springer Verlag ([link](#))

**2012**

**Martin Pirker**, Daniel Slamanig, Johannes Winter; *Practical Privacy-Preserving Cloud Resource-Payment for Constrained Clients*; Proceedings of the 12th Privacy Enhancing Technologies Symposium (PETS) LNCS 7384, Springer Verlag ([link](#))

**Martin Pirker**, Daniel Slamanig; *A Framework for Privacy-Preserving Mobile Payment on Security Enhanced ARM TrustZone Platforms*; Proceedings of the 11th International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom); IEEE ([link](#))

**Martin Pirker**, Johannes Winter, Ronald Tögl; *Lightweight Distributed Heterogeneous Attested Android Clouds*; Proceedings of the 5th International Conference on Trust & Trustworthy Computing (TRUST) LNCS 7344, Springer Verlag ([link](#))

Paul Wiegele, Johannes Winter, **Martin Pirker**, Ronald Tögl; *A flexible software development and emulation framework for ARM TrustZone*; Trusted Systems, Proceedings of the Third International Conference (INTRUST); LNCS 7222, Springer Verlag ([link](#))

**Martin Pirker**, Johannes Winter, Ronald Tögl; *Lightweight Distributed Attestation for the Cloud*; Proceedings of the 2nd International Conference on Cloud Computing and Services Science (CLOSER); SciTePress ([link](#))

Ronald Tögl, Florian Reimair, **Martin Pirker**; *Waltzing the Bear, or: A Trusted Virtual Security Module*; Public Key Infrastructures, Services and Applications, 9th European Workshop (EuroPKI); LNCS 7868, Springer Verlag ([link](#))

Daniel Hein, Ronald Tögl, **Martin Pirker**, Emil Gatial, Zoltán Balogh, Hans Brandl, Ladislav Hluchý; *Securing Mobile Agents for Crisis Management Support*; Proceedings of the seventh ACM workshop on Scalable trusted computing (STC); ACM ([link](#))

Emil Gatial, Zoltán Balogh, Daniel Hein, Ladislav Hluchý, Ronald Tögl, **Martin Pirker**; *Securing Agents Using Secure Docking Module*; TechnicalSciences, Volume No. 15(1)2012 ([link](#))

#### 2011

Michael Gissing, Ronald Tögl, **Martin Pirker**; *Management of Integrity-Enforced Virtual Applications*; Secure and Trust Computing, Data Management, and Applications— STA 2011 Workshop Proceedings (STAVE 2011); Communications in Computer and Information Science, Springer Verlag ([link](#))

Ronald Tögl, **Martin Pirker**, Michael Gissing; *acTvSM: A Dynamic Virtualization Platform for Enforcement of Application Integrity*; Trusted Systems, Proceedings of the Second International Conference (IN-TRUST), Revised Selected Papers; LNCS 6802, Springer Verlag ([link](#))

#### 2010

**Martin Pirker**, Ronald Tögl; *Towards a Virtual Trusted Platform*; Journal of Universal Computer Science, Volume 16, Issue 4 ([link](#))

**Martin Pirker**, Ronald Tögl, Michael Gissing; *Dynamic Enforcement of Platform Integrity*; Trust and Trustworthy Computing, 3rd International Conference (TRUST); LNCS 6101, Springer Verlag ([link](#))

#### 2009

**Martin Pirker**, Ronald Tögl, Daniel Hein, Peter Danner; *A PrivacyCA for Anonymity and Trust*; Trusted Computing, Second International Conference (TRUST); LNCS 5471, Springer Verlag ([link](#))

Ronald Tögl, **Martin Pirker**; *An ongoing Game of Tetris: Integrating Trusted Computing in Java, block-by-block*; Proceedings of the First International Conference Future of Trust in Computing; Vieweg+Teubner ([link](#))

**Martin Pirker**, Ronald Tögl; *Sichere Softwaremodule durch Einsatz von Virtualisierung und Trusted Computing*; Tagungsband der 7. Information Security Konferenz; Österreichische Computer Gesellschaft ([link](#))

#### 2008

Kurt Dietrich, **Martin Pirker**, Tobias Vejda, Ronald Tögl, Thomas Winkler, Peter Lipp; *A Practical Approach for Establishing Trust Relationships between Remote Platforms using Trusted Computing*; Trustworthy Global Computing (TGC), Third Symposium, Revised Selected Papers; LNCS 4912, Springer Verlag ([link](#))

Tobias Vejda, Ronald Tögl, **Martin Pirker**, Thomas Winkler; *Towards Trust Services for Language-Based Virtual Machines for Grid Computing*; Trusted Computing—Challenges and Applications, First International Conference on Trusted Computing and Trust in Information Technologies (TRUST); LNCS 4968, Springer Verlag ([link](#))

#### 2007

Kurt Dietrich, Tobias Vejda, Ronald Tögl, **Martin Pirker**, Peter Lipp; *Can you Really Trust your Computer Today?*; ENISA quarterly, Volume 3, Number 3 ([link](#))