

# Prof. Dr. Han van der Aa

## Curriculum Vitae

Full name        Johannes Hendrikus van der Aa  
Date of Birth    9 October 1988  
Place of Birth   Sint-Oedenrode, the Netherlands  
Address         Hafenstrasse 31, 68159, Mannheim, Germany  
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## WORK EXPERIENCE

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<b>Junior Professor in Artificial Intelligence Methods</b> Head of the research group on Process Analytics Funded by the <i>Künstliche Intelligenz Baden-Württemberg</i> (KI-BW) initiative School of Business Informatics and Mathematics University of Mannheim, Germany	04/2020 – current
<b>Alexander von Humboldt Fellow (post-doctoral researcher)</b> Databases & Information Systems Group, Department of Computer Science Humboldt-Universität zu Berlin, Germany	05/2018 – 03/2020
<b>Post-doctoral Researcher</b> Business Informatics Group, Department of Computer Sciences Vrije Universiteit Amsterdam, the Netherlands	01/2018 – 04/2018
<b>Ph.D. Candidate</b> Business Informatics Group, Department of Computer Sciences Vrije Universiteit Amsterdam, the Netherlands	05/2014 – 01/2018
<b>Junior Researcher</b> SAP AG, Germany	09/2013 – 02/2014

## EDUCATION

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<b>Ph.D. in Computer Science</b> Vrije Universiteit Amsterdam, the Netherlands Thesis: <i>Comparing and Aligning Process Representations</i> Honors: <i>cum laude</i> (top 5% in the Netherlands)	05/2014 – 01/2018
<b>M.Sc. in Business Information Systems</b> Eindhoven University of Technology, the Netherlands Thesis: <i>Composing Workflow Activities</i> Honors: <i>cum laude</i> (top 5% of the university)	09/2010 – 04/2013
<b>B.Sc. in Industrial Engineering</b> Eindhoven University of Technology, the Netherlands Honors: <i>cum laude</i> (top 5% of the university)	09/2007 – 07/2010

## RESEARCH VISITS

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<b>Université Paris Dauphine, France – Visiting professor</b> LAMSADE Laboratory	10/2021 – current
<b>Technion - Israel Institute of Technology, Israel – Visiting researcher</b> Faculty of Industrial Engineering & Management	11/2017 – 12/2017
<b>Vienna Univ. of Economics and Business, Austria – Visiting researcher</b> Department of Information Systems and Operations	06/2013 – 08/2013

## AWARDS

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<b>Best student paper</b>	Int. conf. on Conceptual Modeling (ER)	2020
<b>Runner-up best paper</b>	Int. conf. on Business Process Management (BPM)	2019
<b>Runner-up best thesis</b>	Int. conf. on Business Process Management (BPM)	2018
<b>Runner-up best paper</b>	Int. conf. on Advanced Information Systems Engineering (CAiSE)	2017

## ACQUISITION OF THIRD-PARTY FUNDS

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<b>Alexander von Humboldt Fellowship</b>	05/2018 – 04/2020
Agency:	Alexander von Humboldt Foundation
Call:	Research Fellowships for post-doctoral researchers
Proposal:	Temporal Uncertainty in Conformance Checking of Business Processes
Role:	Principal Investigator
Amount:	<b>85,500 EUR</b>

## INVITED TALKS

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### Research Talks

<b>Challenges and Opportunities of Natural Language Processing in BPM</b>	12/2019
University of Seville, Spain	
<b>Complex Event Processing for Event-Based Process Querying</b> (keynote)	09/2019
International Workshop on Process Querying	
<b>Process Mining for Automated Compliance Checking</b>	11/2017
ING Bank, Amsterdam, the Netherlands	
<b>Comparing Textual Process Descriptions to Process Models</b>	01/2017
Technical University of Barcelona, Spain	
<b>An introduction to Process Model Matching</b> (guest lecture)	11/2016
Technion – Israel Institute of Technology, Haifa, Israel	
<b>Detecting Inconsistencies between Process Models and Textual Descriptions</b>	11/2014
Vienna University of Economics and Business, Austria	

### Tutorials

<b>RuM: Declarative Process Mining, Distilled</b>	09/2021
Int. Conf. on Business Process Management	
<b>Process Mining: Leveraging Event Data to Understand and Improve Organizations</b>	12/2019
IEEE Int. Conf. on Big Data	

## SCIENTIFIC SERVICE (SELECTION)

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### Track Chair

HICSS Mini-Track on Business Process Technology	2022
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### Program Committees

Int. conf. on Process Mining (ICPM)	2021
Int. conf on Distributed and Event-Based Systems (DEBS)	2021
Int. conf. on Business Process Management (BPM)	2020 - 2021
Int. working conf. on Business Process Modeling, Development, and Support (BPMDS)	2019 – 2021
International Joint Conference on Neural Networks (IJCNN)	2020
Workshop on Process Querying	2019 – 2021
Workshop on Artificial Intelligence for Business Process Management	2018 – 2021
Workshop on Declarative/Decision/Hybrid Mining and Modelling for Business Processes	2018 – 2021
Workshop on Blockchains for Inter-Organizational Collaboration	2018
Workshop on Cognitive Business Process Management	2017

### Reviewer for Journals

BISE	Business & Information Systems Engineering
COMIND	Computers in Industry
COMP	Computing
DSS	Decision Support Systems
ESWA	Expert Systems with Applications
IS	Information Systems
JODS	Journal on Data Semantics
SoSym	Software and Systems Modeling
TKDE	IEEE Transactions on Knowledge and Data Engineering

### Reviewer for Conferences

HICSS	Hawaii International Conference on System Sciences	2021
ECIS	European Conference on Information Systems	2018 – 2021
AMCIS	Americas Conference on Information Systems	2017
BPMDS	Business Process Modeling, Development, and Support	2015 – 2017
WI	International Conference on Wirtschaftsinformatik	2017
ICSOC	International Conference on Service Oriented Computing	2015 – 2016

### Reviewer for Funding Agencies

SNF	Swiss National Science Foundation
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## PUBLICATIONS

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My work has been published in several prestigious journals and international conferences, including:

- Information Systems (IS) – 6x
- Decision support systems (DSS) – 2x
- IEEE Transactions on Knowledge and Data Engineering (TKDE) – 1x
- Data and Knowledge Engineering (DKE) – 2x
- Int. Conf. on Advanced Information Systems Engineering (CAISE) – 7x
- Int. Conf. on Business Process Management (BPM) – 5x
- Int. Conf. on Computational Linguistics (COLING) – 1x
- ACM Int. Conf. on Management of Data (SIGMOD) – 1x

Pre-print versions of all my publications are available at [www.hanvanderaa.com/publications](http://www.hanvanderaa.com/publications)

## SELECTED PUBLICATIONS

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1. **Han van der Aa**, Adrian Rebmann, Henrik Leopold: *Natural language-based detection of semantic execution anomalies in event logs*. Information System 102: 101824, 2021.
2. Bo Zhao, **Han van der Aa**, Nguyen Thanh Tam, Nguyen Quoc Viet Hung, Matthias Weidlich: *EIRES Efficient Integration of Remote Data in Event Stream Processing*. ACM SIGMOD International Conference on Management of Data (SIGMOD 2021).
3. Adrian Rebmann, **Han van der Aa**: *Extracting Semantic Process Information from the Natural Language in Event Logs*. International Conference on Advanced Information Systems Engineering (CAISE 2021).
4. Martin Bauer, **Han van der Aa**, Matthias Weidlich: *Sampling and Approximation Techniques for Efficient Process Conformance Checking*. Information Systems 2020 (accepted for publication).
5. **Han van der Aa**, Henrik Leopold, Matthias Weidlich: *Partial Order Resolution of Event Logs for Process Conformance Checking*. Decision Support Systems 136: 113347, 2020.
6. **Han van der Aa**, Henrik Leopold, Hajo A. Reijers: *Efficient Process Conformance Checking on the Basis of Uncertain Event-to-Activity Mappings*. IEEE Transactions on Knowledge and Data Engineering 32(5): 927-940, 2020.
7. Stephan A Fahrenkrog-Petersen, **Han van der Aa**, Matthias Weidlich: *PRIPEL: Privacy-Preserving Event Log Publishing Including Contextual Information*. International Conference on Business Process Management (BPM 2020).
8. **Han van der Aa**, Claudio Di Ciccio, Henrik Leopold and Hajo A Reijers: *Extracting Declarative Process Models from Natural Language*. International Conference on Advanced Information Systems Engineering (CAISE 2019).
9. **Han van der Aa**, Henrik Leopold, Hajo A. Reijers: *Comparing Textual Descriptions to Process Models – The Automatic Detection of Inconsistencies*. Information Systems 64: 447-460, 2017.
10. Claudio Di Ciccio, **Han van der Aa**, Cristina Cabanillas, Jan Mendling, Johannes Prescher: *Detecting Flight Trajectory Anomalies and Predicting Diversions in Freight Transportation*. Decision Support Systems 88(1): 1-17, 2016.