

## Contact

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[www.linkedin.com/in/dirkhartmann](http://www.linkedin.com/in/dirkhartmann)  
(LinkedIn)

[scholar.google.de/citations](http://scholar.google.de/citations) (Other)  
[www.researchgate.net/profile/Dirk\\_Hartmann3](http://www.researchgate.net/profile/Dirk_Hartmann3) (Other)

## Top Skills

Simulations

R&D

Algorithms

## Honors-Awards

HGS MathComp von Neumann  
Lecture

Junior Academy for Young Scholars  
and Scientists (WIN-Kolleg)

GAMM Young Researchers  
Minisymposia Award

## Publications

38 peer reviewed publications with  
500+ citations

# Dirk Hartmann

Innovator and Intrapreneur driving the Digital Twin Revolution  
Munich, Bavaria, Germany

## Summary

I am an innovator and intrapreneur in the field of simulation and digital twins. My experience covers research, innovation, and development project oriented responsible positions (up to budgets of 9m€). Many of my innovations were showcased at top-level Siemens innovation events including the Siemens innovation day and the annual shareholder meeting. These innovations led to short term valorizations within novel products and services.

Along my professional career, I continuously supervise students at the Technical University of Munich as well as drive the industrial mathematics research on a national and European level within KoMSO and EU-MATHS-IN.

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## Experience

### Siemens

Senior Principal Scientist, Simulation and Digital Twin

December 2018 - Present

Munich Area, Germany

Senior principal key research scientist of the technology field Simulation and Digital Twin technically leading the 120 scientists and engineers in the technology field as well as advising the management of Corporate Technology, the Siemens Divisions and Business Units.

### Siemens

9 years 11 months

Corporate Technology Program Manager of the Company Core  
Technology Simulation and Digital Twin

February 2017 - Present

Munich Area, Germany

Program Manager of the Company Core Technology Simulation and Digital Twin at Corporate Technology (responsible for a Budget 23'0€/year with teams in DE, US, IN, CN) and project lead of innovation projects.

#### Key Achievements:

- ⇒ Founded two innovation fund projects within the Siemens Innovation Fund (2017 & 2018)
- ⇒ Innovations have been showcased at Hannover Messe 2017, Siemens innovation day 2017, and annual shareholder meeting 2018
- ⇒ Initiated Siemens Fellowships at the Institute of Advanced Study at the Technical University of Munich

#### Head of Core Technology Initiative Simulation

December 2013 - September 2017 (3 years 10 months)

Munich Area, Germany

Project lead of the Core Technology Initiative „Stimulation“ driving next generation simulation technologies for and together with all Siemens Business Units (cross division project with budget of 9m€ and team members in DE, IN, and US).

#### Key Achievements:

- ⇒ Realization of novel online simulation technology 500 times faster than state of the art tools
- ⇒ Foundation of the simulation and digital twin lab
- ⇒ Organization of the yearly Simulation@Siemens conference with 150 internal participants
- ⇒ Established an internal Siemens Social Network with more than 600 internal experts

#### Research Scientist, Consultant, and Project Manager

April 2009 - November 2013 (4 years 8 months)

Munich Area, Germany

Technical expert and consultant in the field of modeling, simulation and optimization

#### Key Achievements:

- ⇒ Project management of internal and public funded research projects
- ⇒ Definition and execution of strategic research projects in the field of simulation architectures, mathematical engineering and uncertainty quantification
- ⇒ Delivered technology backbone for Siemens founded startups
- ⇒ CAE & PLM strategy consulting and project management at various business units
- ⇒ Coordination of and establishment of new university collaborations

University of Heidelberg

Researcher

November 2007 - March 2009 (1 year 5 months)

Heidelberg Area, Germany

Interdisciplinary researcher at the interface of applied mathematics, computational science and biology

Key Achievements:

- ⇒ Developed novel multi-scale concepts and computational tools in the field of mechano-biology which helped proving the role of mechanics in biology
- ⇒ Close interdisciplinary collaboration with multiple international biology research groups
- ⇒ Initiation and principal Investigator of public funded research projects
- ⇒ Lecturing mathematics for biologists with 130 students per course
- ⇒ Supervision of multiple PhD and diploma students

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## Education

Ruprecht-Karls-Universität Heidelberg / University of Heidelberg

Doctor of natural Sciences; Diploma of Mathematics; Diploma of Physics, Applied Mathematics; Physics · (1998 - 2007)

University of Warsaw

International Graduate College "Complex processes: Modeling, Simulation and Optimization" · (2003 - 2007)

Cambridge University

Master of Advanced Studies in Mathematics and Theoretical Physics, Applied Mathematics and Theoretical Physics · (2000 - 2001)