

Program for the 4th Annual Meeting of the SPP 2364

Kick-off for the 2nd phase

24.-25.11.2025

GenoHotel Karlsruhe
Am Rüppurrer Schloss 40
76199 Karlsruhe

5 minutes oral presentation as a short PowerPoint flash presentation with max. 3 slides on the topic, new results and outlook for the 2nd phase; discussion for each PhD project only at the poster; sequence of individual contributions within the project as desired; presentations can preferably be made by PhDs or PostDocs in English.

Please send each PowerPoint presentation until the 21st of November to spp2364@mvm.kit.edu

Monday, 24.11.2025

- | | |
|-------------|--|
| 12.00-13.00 | Check-in and lunch |
| 13.00-13.30 | Introduction and short review of the third year
(Hermann Nirschl) |

Particle Handling:

- | | |
|-------------|---|
| 13.30-13.40 | Adaptive optimal control of continuous aqueous two-phase flotation (ATPF)
(Katrín Baumgärtner, Florian Messerer, Kim Lohfink) |
| 13.40-13.50 | Model-based process control for dynamic and efficient operation of liquid/liquid mixer-settler systems
(Chrysoula Bliatsiou, Daniel Topalovic) |
| 13.50-14.05 | Autonomous structure formation processes in spray fluidized bed agglomeration
(Jialin Men, Eric Julian Otto, Aisel Ajalova) |
| 14.10-15.00 | Poster discussion |
| 15.00-15.30 | Coffee break |

Particle Synthesis:

- | | |
|-------------|--|
| 15.30-15.45 | Autonomous control of a process chain for CO ₂ carbonation by use of mine waste
(Mohammad Al Kathib, Volker Bächle, Chinmay Hegde) |
| 15.45-15.55 | Model-based process control for transferred arc synthesis of nanoparticles
(Danijel Cuturic, Jonah Weidemann) |
| 15.55-16.05 | Synthesis of highly functional nanoparticles via a sol-gel process using X-ray scattering methods: from process development to process control
(Guohui Yang, Marcel Kevin Jiokeng Dongmo) |
| 16.05-16.15 | Model-based control of the dynamics during fine grinding in wet-operated stirred media mills
(Michel Lahmann, Christoph Thon) |
| 16.15-16.25 | ARCO-CRYSTAL: Adaptive robust predictive control of continuous slug flow cooling crystallization
(Collin Johnson, Maximilian Kattner, Marc Meier) |
| 16.30-17.25 | Poster discussion |
| 17.30-19.00 | Guest lecture with discussion: Prof. Zoltan Nagy
Title: tbd |
| 19.00 | Dinner |

Tuesday, 25.11.2025

Formulation:

09.00-09.10	Autonomous and self-adapting, high-resolution 3D additive manufacturing by high energy impacts of fine particles (Yannik Sinnwell, Anton Maksakov)
09.10-09.20	Model-based quality control in continuous manufacturing of pharmaceutical granules (QC4CM) (Stefan Tölle, Stefan Klinken-Uth)
09.20-09.35	Formulation of dispersed systems via (melt) emulsification: Process design, in situ diagnostics and regulation (Thorben Südhoff, Stefan Buchstaller, Leah Ebner)
09.35-09.45	Model-based control of spray synthesis of structured granules with specified properties, using transfer functions derived by multivariate stochastic models and machine learning (Rahul Mitra, Lukas Fuchs)
09.50-10.45	Poster discussion
10.45-11.15	Coffee break
11.15-11.45	Outlook for the second period
11.45-13.00	Lunch
13.00	Departure of the PIs

Program for the 4th Ph.D. Workshop of the SPP 2364

Kick-off for the 2nd phase

25.-26.11.2025

GenoHotel Karlsruhe

Am Rüppurrer Schloss 40

76199 Karlsruhe

Tuesday, 25.11.2025

Ph.D. Workshop: How I did it!

13.00-14.30	Dr. Claas Klasen (former Evonik industries)
14.30-15.00	Coffee break
15.00-16.30	Dr. Zoltan Nagy (University of Purdue)
16.30-18.00	Discussion, open topics
18.00	Dinner

Wednesday, 26.11.2025

Trip to BASF, Ludwigshafen

07.00	Departure at the GenoHotel
	Program see attached
17.00	Arrival at rail station Karlsruhe



Autonomous processes in particle technology

DFG Priority Program @ BASF

Time	Location	Agenda
<i>Wednesday 26th November 2025</i>		
<i>Independent arrival of external participants by bus</i> ✎ Gesellschaftshaus der BASF Wöhlerstrasse 15 67063 Ludwigshafen		
09:00	Gesellschaftshaus Courtyard / Entrance area	Welcome by BASF representatives - Automation Technology - Solids Formulation and Handling
09:05 ~ 30 min	Gesellschaftshaus Juliuszimmer II (1st floor to the left)	Talk by <u>Hermann Nirschl</u> SPP Priority Program overview + short Q&A
09:35 - 10:15 ~ 40 min	"	Talk <u>BASF Automation</u> Central topic in BASF process automatisisation
10:15 - 11:30	Juliuszimmer II + III	Poster session (Particle Synthesis)
11:35 - 12:05	Juliuszimmer II + III	Poster session (Particle Handling, Formulation)
12:05 - 12:45	Juliuszimmer II	Carreer @ BASF + Q&A session Sabrina Turba (RG/H)
12:45 - 13:00	"	Closing remarks & perspectives
13:00 - 14:00	Festsaal (2nd floor)	"Create your Bowl" - Buffet
<i>Bus tour BASF Ludwigshafen</i> <i>Duration: 1 hour</i> ✎ Start @ Parking lot Gesellschaftshaus der BASF ✎ End @ Parking lot Gesellschaftshaus der BASF		
15:00		End of event



BASF
We create chemistry