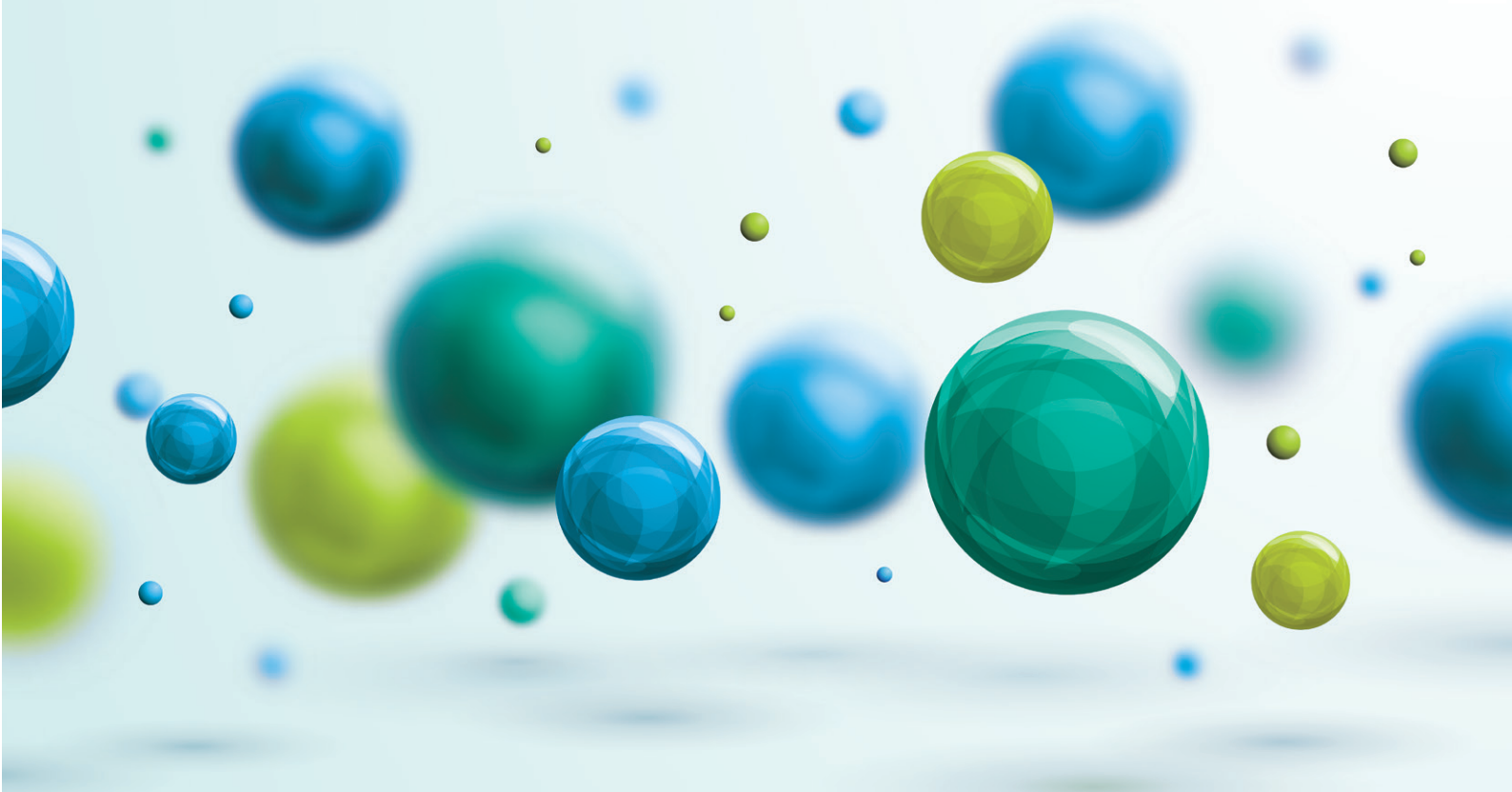


# PARTEC 2023

**International Congress on Particle Technology**

September 26–28, 2023, Nuremberg, Germany

**PARTICLE TECHNOLOGY FOR SUSTAINABLE PRODUCTS**



**AT A GLANCE**

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## PURPOSE

Today particle technology not only plays an important role in classical industries like chemical, pharmaceutical, food and minerals industry, but also in in dynamically developing industries for products related to energy transition like battery and fuel cells as well as for advanced production technologies like additive manufacturing.

Consequently, besides the classical fields the PARTEC 2023, as one of the largest international particle and powder technology conferences, addresses both, the classical and the emerging fields of research and applications of particle technology. Especially, due to climate change, sustainability and circular economy are becoming increasingly important. PARTEC 2023 wants to take this change into account with the overarching theme **“Particle Technology for Sustainable Products”**. Thus, special focus will lay not only on highest product quality, but on maximizing material utilization and energy efficiency of the processes.

## SCIENTIFIC COMMITTEE

Antonyuk, S. – TU Kaiserslautern, Germany

Arastoopour, H. – IIT, USA

Braun, M. – Ansys Germany GmbH, Germany

Butt, H.-J. – MPIP, Germany

Chaouki, J. – EPM, Canada

Cölfen, H. – U. Konstanz, Germany

Coppens, M.-O. – UCL - Engineering, UK

Dave, R.-N. – NJIT, USA

Fan, L.-S. – U. Ohio State, USA

Fritsching, U. – U. Bremen, Germany

Frye, L. – Bayer AG, Germany

Fuji, M. – NITech, Japan

Hartmann, C. – Nestlé, Switzerland

Herrmann, H. J. – ETH Zürich, Switzerland

John, E. – Novartis Pharma AG, Switzerland

Juhnke M. - F. Hoffmann-La Roche Ltd, Switzerland

Kalman, H. – BGU Negev, Israel

Kind, M. – KIT, Germany

Kleinebudde, P. – HHU Düsseldorf, Germany

Klupp-Taylor, R. – FAU Erlangen-Nürnberg, Germany

Kuipers, J.A.M. – TU Eindhoven, Netherlands

Kraus, T. – INM – Leibniz, Germany

Li, J. – CAS, China

Litster, J. – U. Sheffield, UK

Luding, S. – U. Twente, Netherlands

Materazzi, M. – UCL Chemical Engineering, UK

The PARTEC brings together a wide mix of attendees, from both academia and industry, in a very communicative place. A highlight, especially regarding transfer of research to application, is the connection to the POWTECH, the world’s leading exhibition for the processing, analysis and handling of powder and bulk solids, promoting intensive discussion between academic and industrial attendees.

I would be very happy to welcome you as many other academic and industrial particle experts from all over the world in Nuremberg at PARTEC 2023.

**Prof. Dr.-Ing. Arno Kwade**

TU Braunschweig, Head of Institute of Particle Technology  
Chairman for PARTEC 2023

Matsusaka, S. – U. Kyoto, Japan

Meesters, G.M.H. – TU Delft, Netherlands

Muzzio, F. J. – SoE Rutgers, USA

Naito, M. – U. Osaka, Japan

Nakamura, H. - Osaka Metropolitan University, Japan

Peglow, M. – IPT-Pergande GmbH, Germany

Pirker, S. – JKU Linz, Austria

Prastinis, S. – ETH Zürich, Switzerland

Pui, D.Y.H. – U. Minnesota, USA

Riebel, U. – BTU Cottbus, Germany

Salman, A.D. – U. Sheffield, UK

Satoru, W. - Osaka Prefecture University, Japan

Schmidt, E. – BUW, Germany

Schneider, H. – Zeppelin Systems GmbH, Germany

Seville, J.P.K. – U. Birmingham, UK

Tavares, L.M.M. – UFRJ, Brazil

Teipel, U. – TH Nürnberg, Germany

Tsotsas, E. – OvGU Magdeburg, Germany

van Ommen, R. – TU Delft, Netherlands

Weber, A.D. – TU Clausthal, Germany

Weimer, A.W. – U. Colorado, USA

Weinekötter, R. – Gericke AG, Switzerland

Winter, M. – WWU Münster, Germany

Witt, W. – Sympatec GmbH, Germany

Wollny, M. – Merck KGaA, Germany

Yu, A. – Monash University, Australia

## EXECUTIVE COMMITTEE

Garnweiter, G. – TU Braunschweig, Germany

Ghadiri, M. – University of Leeds, UK

Heinrich, S. – Hamburg University of Technology, Germany

Kleine Jäger, F. – BASF SE, Germany

Kwade, A. – TU Braunschweig, Germany

Mädler, L. – Stiftung Institut für Werkstofftechnik Bremen, Germany

Nirschl, H. – Karlsruhe Institute of Technology, Germany

Ooi, J. - The University of Edinburgh, UK

Peuker, U. – TU Bergakademie Freiberg, Germany

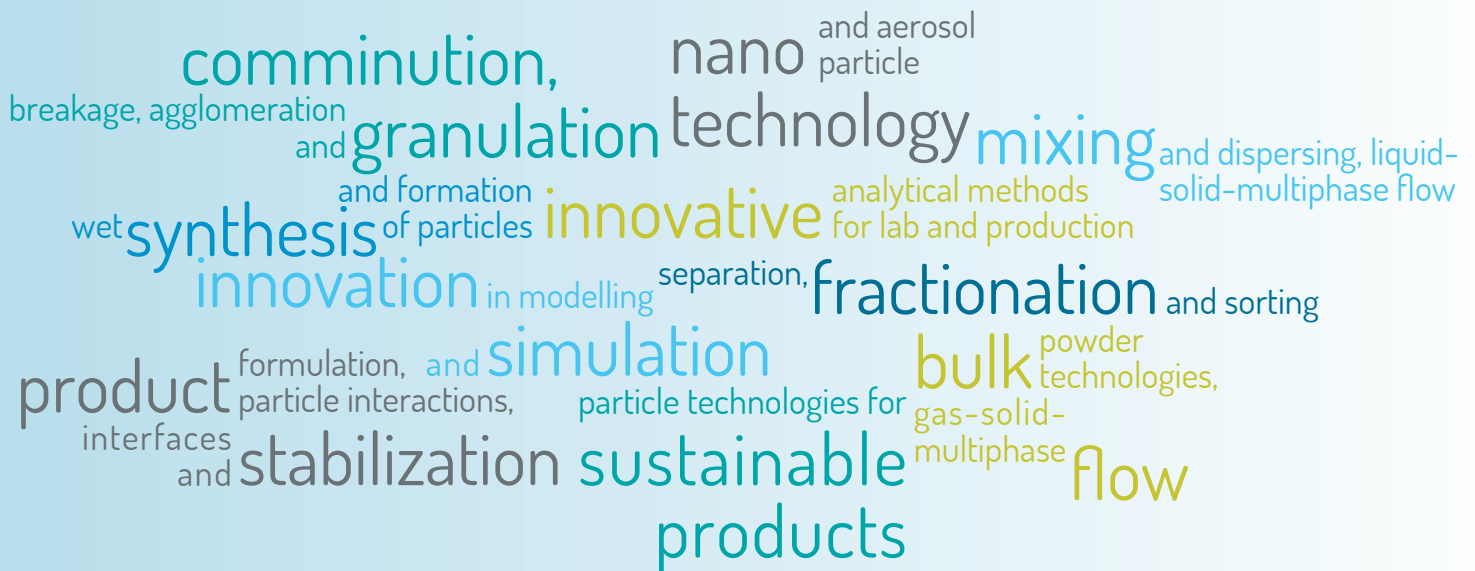
Peukert, W. – FAU Erlangen-Nürnberg, Germany

## TOPICS AND SUBJECTS

PARTEC welcomes contributions from researchers in universities, industrial companies and other research organizations. Industry specific and also joined research proposals between industry and research organizations are appreciated. Contributions covering all aspects of particle science and applications are welcome.

Subjects of interest can include:

- Bulk powder technologies, gas-solid-multiphase flow
- Comminution, breakage, agglomeration and granulation
- Separation, fractionation and sorting
- Mixing and Dispersing, Liquid-Solid-Multiphase flow
- Wet synthesis and formation of particles
- Product formulation, particle interactions, interfaces and stabilization
- Innovative analytical methods for lab and production
- Nano and aerosol particle technology
- Particle technologies for sustainable products
- Innovation in modelling and simulation



## GENERAL INFORMATION

The congress will last three days, comprising keynote addresses and presentations in a series of plenary and parallel sessions. The official language of the congress will be English. No simultaneous translation will be provided. The congress programme will be available in April 2023. Travel expenses will not be paid.

**Conference Venue:** Exhibition Centre Nuremberg, Messezentrum, 90471 Nuremberg, Germany

**Cooperation Partner – Abstract Management:** VDI Wissensforum GmbH, VDI-Platz 1, 40468 Dusseldorf, Germany

**Organizer:** NürnbergMesse GmbH, Messezentrum, 90471 Nuremberg, Germany



## SUPPORTING ORGANISATIONS



International Association for Pharmaceutical Technology (APV), Germany



AIChE's Particle Technology Forum (AIChE's PTF), USA



DECHEMA, Gesellschaft für Chemische Technik und Biotechnologie e.V. (Society for Chemical Engineering and Biotechnology), Germany



German Association of Biotechnology Industries (DIB), Germany



Deutsche Keramische Gesellschaft (German Ceramic Society) (DKG), Germany



Deutscher Schüttgut-Industrie Verband (The German Powder and Bulk Association) (DSIV), Germany



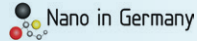
The Research Association of the German Food Industry (FEI), Germany



The Chemical Industry and Engineering Society of China



Association for Aerosol Research (GAeF), Germany



Nano in Germany, Germany



IChemE PTSIG, UK



The Society of Powder Technology, Japan

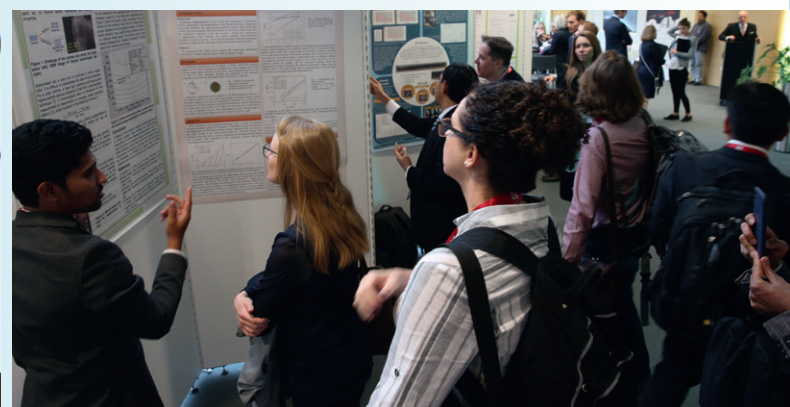


VDI Society Chemical and Process Engineering (VDI-GVC), Germany

## SPONSORS



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## PLENARIES (AS CONFIRMED BY AUGUST, 2022)



### Solid-State Batteries – a Future Application of Advanced Particle Technology

Janek, J.; Physical Chemistry of Solids – JLU Gießen, Germany



### Simulation of Particulate Processes – towards Industrial Digitalisation

Ooi, J.; Particulate Solid Mechanics – The University of Edinburgh, UK



### BASF's Pathways to Sustainability and Circular Economy

Maas-Brunner, M.; CTO – BASF, Germany



### Particle Technology Enabling the Transition to a Regenerative Food System

Palzer, S.; CTO – Nestlé, Switzerland



### Advanced Manufacturing of Powder-Based Pharmaceutical Products

Muzzio, F.; Chemical Engineering – Rutgers University, USA

## KEYNOTES (AS CONFIRMED BY AUGUST, 2022)



### Inhibition of Calcium Carbonate Precipitation on Cooling Surfaces: from Laboratory Scale to Industrial Pilot Plant

Biscans, B. – LGC Toulouse, France



### Predicting the Breakage, Mixing and Stress of Aspherical Particles Using the Discrete Element Method

Sinclair Curtis, J. – University of California, USA



### Virus Aerosol Filtration: Infectivity vs Physical Penetration, Real-Time Low-Cost Bioaerosol Sensor, Virus Droplets Evaporation and Transport

Pui, D.Y.H. – University of Minnesota, USA



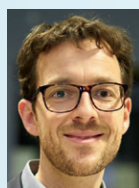
### Gas Phase Coating of Particles: Towards Ton-Scale Production with Nano-Precision

van Ommen, R. – TU Delft, Netherlands



### Physical Inspired Data-Driven Modelling of Particulate Processes

Schilde, C. – TU Braunschweig, Germany



### Supraparticles – Controlling Confined Self-Assembly Processes to Design Functional Materials

Vogel, N. – FAU Erlangen, Germany



### Advances in Automated High Throughput Workflows for Catalysts and Battery Materials R&D

Schulz-Dobrick, M. – BASF, Germany



### New Synchrotron Tomography-Assisted Insights into Mixing and Structure Formation of Liquid-Solid-Multiphase Systems

Windhab, E. – Swiss Federal Institute of Technology Zürich, Switzerland

## FURTHER INFORMATION

For additional information and registration, please visit <https://www.partec.info/> or scan the QR Code on the right-hand side.

WE'RE LOOKING FORWARD TO SEEING YOU AT PARTEC 2023  
IN NUREMBERG!

