

List of talks and poster presentations

Raphael Wittkowski

Total number of talks and presentations: 104

Types of talks and presentations

● Invited:	26
Lectures:	2
Conference talks:	6
Symposium talks:	1
Colloquium talks:	1
Seminar talks:	12
Other talks:	2
Conference posters:	2
● Contributed:	78
Conference talks:	52
Seminar talks:	7
Other talks:	1
Conference posters:	18

Videos are available for some talks. In these cases, the corresponding URLs are stated below.

See https://www.uni-muenster.de/Physik.TP/~wittkowski/talks_rw.pdf for an update.

a) Invited lectures

- [LI.1] R. Wittkowski*,
“Modeling the dynamics of active soft matter”,
September 24, 2018,
International Workshop “Advanced School – From Complex Fluids to Living Matter”,
September 24–28, 2018,
University of Münster, Münster, Germany.
Invited by Oliver Kamps.
- [LI.2] R. Wittkowski*,
“Dynamics of self-propelled colloidal particles”,
May 27–29, 2015,
Module “Complex Nanostructures” of the Graduate School Build-MoNa,
May 27–29, 2015,
University of Leipzig, Leipzig, Germany.
Invited by Frank Cichos and Klaus Kroy.

b) Invited conference talks

- [CL.1] R. Wittkowski*, J. Jeggle, and C. Denz,
“Photonicallly propelled nano- and microparticles: from single-particle motion to collective dynamics”,
August 1, 2021,
Conference “Molecular and Nano Machines IV” at the Symposium “SPIE Optics+Photonics: Organic Photonics+Electronics”,
August 1–5, 2021,
San Diego Convention Center, San Diego, California, United States.
Invited by the Organizers of the Conference,
<https://spie.org/optics-photonics/presentation/Photonicallly-propelled-nano-and-microparticles-From-single-particle/11812-4>.
- [CL.2] R. Wittkowski*,
“Jerky active matter model: particle dynamics with translational and orientational memory”,
June 23, 2021,
CECAM Workshop “Memory Effects in Dynamical Processes: Theory and Computational Implementation” (virtual),
June 23–25, 2021,
Erwin-Schrödinger Institute, Vienna, Austria.
Invited by the Organizers of the Workshop.
- [CL.3] R. Wittkowski*,
“Field-theoretical modeling of active matter”,
February 11, 2020,
CECAM Workshop “Frontiers in Computational Methods for Active Matter”,
February 10–12, 2020,

CECAM-HQ, EPFL, Lausanne, Switzerland.
Invited by the Organizers of the Workshop.

- [CI.4] R. Wittkowski*,
“Phase-field-crystal models for colloidal liquid crystals”,
May 23, 2014,
CECAM Workshop “Multiscale Modeling of Materials with Atomic Scale Resolution using Phase-Field-Crystal Methods”,
May 21–23, 2014,
CECAM-HQ, EPFL, Lausanne, Switzerland.
Invited by the Organizers of the Workshop.
- [CI.5] R. Wittkowski*,
“Brownian dynamics of an active particle with arbitrary shape”,
September 10, 2012,
Transregio Workshop “SFB TR6 Young Researcher Meeting”,
September 10–12, 2012,
University of Konstanz, Konstanz, Germany.
Invited by the Organizers of the Workshop.
- [CI.6] R. Wittkowski*, H. R. Brand, and H. Löwen,
“Polar liquid crystals: the bridge from microscopic to macroscopic approaches”,
April 18, 2011,
CODEF Meeting “Young Researcher Meeting”,
April 18–19, 2011,
Universiteit Utrecht, Utrecht, Netherlands.
Invited by the Organizers of the Meeting.

c) Invited symposium talks

- [YL.1] R. Wittkowski*,
“Acoustically propelled microparticles: dynamics and control”,
July 16, 2021,
Symposium “Control of driven colloidal systems” of the CRC 910 “Control of self-organizing nonlinear systems: Theoretical methods and concepts of application” (virtual),
July 16, 2021,
Technical University of Berlin, Berlin, Germany.
Invited by Sabine Klapp.

d) Invited colloquium talks

- [QL.1] R. Wittkowski*,
“Artificial microswimmers”,
December 15, 2015,
Kolloquium “Nonlinear Science”,

University of Münster, Münster, Germany.
Invited by Uwe Thiele.

e) Invited seminar talks

- [SI.1] R. Wittkowski*,
“Acoustically propelled nano- and microparticles”,
July 12, 2022,
Seminar “Theoretical Physics”,
Otto von Guericke University Magdeburg, Magdeburg, Germany.
Invited by Andreas Menzel.
- [SI.2] R. Wittkowski*,
“SIR-DDFT: A compartmental model for epidemiology”,
June 29, 2021,
Biophysics Seminar (virtual),
University of Montpellier, Montpellier, France.
Invited by John Palmeri.
- [SI.3] R. Wittkowski*,
“Predictive modeling of the mesoscopic dynamics of materials”,
December 13, 2019,
Seminar of the “Institute of Mechanics”,
Technical University of Dortmund, Dortmund, Germany.
Invited by Patrick Kurzeja.
- [SI.4] R. Wittkowski*,
“Self-propelled microparticles: recent results and open questions”,
February 8, 2017,
Seminar of the Working Group “Computational and Applied Mathematics”,
University of Münster, Münster, Germany.
Invited by Martin Burger.
- [SI.5] R. Wittkowski*,
“Self-propelled artificial microparticles: from fundamentals to applications”,
June 16, 2016,
Seminar on “Theory of Condensed Matter/Soft Matter and Statistical Physics”,
University of Mainz, Mainz, Germany.
Invited by Thomas Speck.
- [SI.6] R. Wittkowski*,
“Self-propelled microparticles”,
May 6, 2016,
Seminar of the “Institute of Pharmacology and Toxicology”,
Biomedical Center, University of Bonn, Bonn, Germany.
Invited by Alexander Pfeifer.
- [SI.7] R. Wittkowski*,
“Individual and collective dynamics of active soft matter”,
July 21, 2015,

Seminar of the “Institute of Materials Physics in Space”,
German Aerospace Center, Cologne, Germany.
Invited by Matthias Sperl.

- [SI_8] R. Wittkowski*,
“Phase-field-crystal models for liquid crystals: from passive to active particles”,
May 19, 2014,
Seminar of the Department “Polymer Theory”,
Max Planck Institute for Polymer Research, Mainz, Germany.
Invited by Harald Pleiner.
- [SI_9] R. Wittkowski*,
“Dynamical density functional theory for colloidal particles with arbitrary shape”,
September 11, 2012,
Seminar of the Working Group “Soft Condensed Matter Theory”,
University of Konstanz, Konstanz, Germany.
Invited by Matthias Fuchs.
- [SI_10] R. Wittkowski*,
“Brownian dynamics of a self-propelled colloidal particle with arbitrary shape”,
July 16, 2012,
Seminar on “Current Questions in Theoretical Physics”,
University of Bayreuth, Bayreuth, Germany.
Invited by Helmut Brand.
- [SI_11] R. Wittkowski* and H. Löwen,
“Phase-field-crystal model for liquid crystals from density functional theory”,
October 18, 2010,
Seminar on “Current Questions in Theoretical Physics”,
University of Bayreuth, Bayreuth, Germany.
Invited by Helmut Brand.
- [SI_12] R. Wittkowski*,
“Stochastic transport in plasmarelevant twist maps”,
November 6, 2009,
Seminar of the Department “Plasma Physics”,
Institute of Energy and Climate Research, Forschungszentrum Jülich, Jülich,
Germany.
Invited by Yunfeng Liang.

f) Invited other talks

- [OL_1] R. Wittkowski*,
“Modellierung der Ausbreitung von Pandemien”,
June 10, 2021,
Forum of the Young Academy, North Rhine-Westphalian Academy of Sciences,
Humanities and the Arts (virtual),
Düsseldorf, Germany.
Invited by Lea Letzel.

- [OI.2] R. Wittkowski*,
“Von Statistischer Physik zu Weicher Materie und Medizin”,
March 10, 2021,
Introductory talk, Scientific Meeting of the Section for Natural Sciences and
Medicine, North Rhine-Westphalian Academy of Sciences, Humanities and the
Arts (virtual),
Düsseldorf, Germany.
Invited by Otmar Schober.

g) Invited conference posters

- [PI.1] J. Stenhammar, R. Wittkowski*, D. Marenduzzo, and M. E. Cates,
“Nonequilibrium dynamics of mixtures of active and passive particles”,
September 1–2, 2014,
570th WE-Heraeus Seminar “Nonlinear Response in Complex Systems and
Nonequilibrium Liquids”,
September 1–5, 2014,
Institute of Materials Physics in Space, German Aerospace Center, Cologne,
Germany.
Invited by Thomas Voigtmann.
- [PI.2] R. Wittkowski* and H. Löwen,
“Brownian dynamics of a self-propelled colloidal particle with arbitrary shape”,
March 21, 2012,
CODEF Meeting “Colloidal Dispersions in External Fields III”,
March 20–23, 2012,
Gustav-Stresemann Institute, Bad Godesberg, Bonn, Germany.
Invited by the Organizers of the Meeting.

h) Contributed conference talks

- [CC.1] A. R. Sprenger*, C. Scholz, A. Ldov, A. M. Menzel, R. Wittkowski, and H.
Löwen,
“Inertial self-propelled particles in anisotropic environments”,
October 24, 2022,
Conference “Physics of Active Matter 2022”,
October 24–28, 2022,
Coyhaique, Chile.
- [CC.2] M. Evers*, R. Wittkowski, and L. Linsen,
“ASEVis: Visual exploration of active system ensembles to define characteristic
measures”,
October 20, 2022,
Conference “IEEE VIS 2022”,
October 15–21, 2022,
Omni Oklahoma City Hotel, Oklahoma City, Oklahoma, United States.

- [CC_3] M. te Vrugt*, M. P. Holl, A. Koch, R. Wittkowski, and U. Thiele,
“Derivation and analysis of a phase field crystal model for a mixture of active and passive particles”,
September 27, 2022,
Conference “DFT Days 2022”,
September 26–28, 2022,
Castle Hohentübingen, Tübingen, Germany.
- [CC_4] J. Jeggle* and R. Wittkowski,
“FIPS: A generic framework for many-particle simulations focusing on efficiency and reliability”,
September 9, 2022,
DPG Meeting 2022, Condensed Matter Section,
September 4–9, 2022,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2022/conference/regensburg/part/dy/session/49/contribution/6>.
- [CC_5] J. Mayer Martins* and R. Wittkowski,
“Inertial dynamics of an active Brownian particle”,
September 6, 2022,
DPG Meeting 2022, Condensed Matter Section,
September 4–9, 2022,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2022/conference/regensburg/part/dy/session/16/contribution/10>.
- [CC_6] M. te Vrugt*, S. Hossenfelder, and R. Wittkowski,
“Mori-Zwanzig formalism for general relativity: a new approach to the averaging problem”,
September 5, 2022,
DPG Meeting 2022, Condensed Matter Section,
September 4–9, 2022,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2022/conference/regensburg/part/dy/session/3/contribution/3>.
- [CC_7] M. te Vrugt*, G. I. Tóth, and R. Wittkowski,
“Irreversibility in statistical mechanics: from quantum mechanics to soft matter theory”,
August 17, 2022,
International Conference of the German Society for Philosophy of Science,
August 15–17, 2022,
Technical University of Berlin, Berlin, Germany.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2022-08_GWP_Talk_MtV.mp4.
- [CC_8] M. te Vrugt*, G. I. Tóth, and R. Wittkowski,
“Can GRW collapses explain irreversibility? A computer experiment”,
August 5, 2022,
Summer School “The Nature of Entropy II: Arrow of Time”,

August 1–6, 2022,
Georg-von-Vollmar Akademie, Kochel am See, Germany.

- [CC_9] C. Denz*, M. Rüschenbaum, V. Bobkova, J. Jeggle, and R. Wittkowski,
“Light-actuated colloidal nano- and microparticles”,
October 1, 2021,
DPG Meeting 2021 (virtual), Condensed Matter Section,
September 27–October 1, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/skm/part/cpp/session/13/contribution/6>.
- [CC_10] J. Bickmann*, S. Bröker, M. E. Cates, and R. Wittkowski,
“Orientation-dependent propulsion of active Brownian spheres: from advection to polygonal clusters”,
September 30, 2021,
DPG Meeting 2021 (virtual), Condensed Matter Section,
September 27–October 1, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-09_DPG_Talk_JB.mp4,
<https://www.dpg-verhandlungen.de/year/2021/conference/skm/part/dy/session/12/contribution/1>.
- [CC_11] M. te Vrugt*, G. I. Tóth, and R. Wittkowski,
“Master equations for Wigner functions with spontaneous collapse and their relation to thermodynamic irreversibility”,
September 29, 2021,
DPG Meeting 2021 (virtual), Condensed Matter Section,
September 27–October 1, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-09_DPG_Talk_MtV_3.mp4,
<https://www.dpg-verhandlungen.de/year/2021/conference/skm/part/dy/session/9/contribution/4>.
- [CC_12] M. te Vrugt* and R. Wittkowski,
“Understanding dynamical density functional theory via the Mori-Zwanzig formalism: from physics to philosophy”,
September 13, 2021,
Conference “DFT Days 2021” (virtual),
September 13–15, 2021,
Tübingen, Germany.
<https://www.youtube.com/watch?v=CVFs-sUnxaM>.
- [CC_13] M. te Vrugt*, S. Hossfelder, and R. Wittkowski,
“Mori-Zwanzig formalism for general relativity: a new approach to the averaging problem”,
September 2, 2021,
DPG Meeting 2021 (virtual), Matter and Cosmos Section,
August 30–September 3, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-09_DPG_Talk_MtV_2.mp4,

<https://www.dpg-verhandlungen.de/year/2021/conference/smuk/part/gr/session/9/contribution/3>.

- [CC_14] M. te Vrugt*, G. I. Tóth, and R. Wittkowski,
“Master equations for Wigner functions with spontaneous collapse and their relation to thermodynamic irreversibility”,
September 1, 2021,
DPG Meeting 2021 (virtual), Matter and Cosmos Section,
August 30–September 3, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-09_DPG_Talk_MtV_1.mp4,
<https://www.dpg-verhandlungen.de/year/2021/conference/smuk/part/agphil/session/5/contribution/3>.
- [CC_15] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
“Effects of social distancing and isolation on epidemic spreading modeled via dynamical density functional theory”,
August 24, 2021,
Conference “Dynamics Days Europe 2021”,
August 23–27, 2021,
Université Côte d’Azur, Nice, France.
https://dynamicsdays2021.univ-cotedazur.fr/assets/dynamicsdays_nice_2021.pdf.
- [CC_16] M. Rüschenbaum*, N. Burczyk, J. Jeggle, J. Hallekamp, C. Denz, and R. Wittkowski,
“Light propelled artificial micro-machines”,
August 1, 2021,
Conference “Molecular and Nano Machines IV” at the Symposium “SPIE Optics+Photonics: Organic Photonics+Electronics”,
August 1–5, 2021,
San Diego Convention Center, San Diego, California, United States.
<https://spie.org/optics-photonics/presentation/Light-propelled-artificial-micro-machines/11812-9>.
- [CC_17] M. te Vrugt* and R. Wittkowski,
“Orientational order parameters for arbitrary quantum systems”,
May 19, 2021,
International Wigner Workshop (virtual),
May 17–21, 2021,
TU Wien, Vienna, Austria.
- [CC_18] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
“Effects of social distancing and isolation on epidemic spreading modeled via dynamical density functional theory”,
May 6, 2021,
Workshop “New directions in classical density functional theory” (virtual),
May 3–6, 2021,
University of Edinburgh, Edinburgh, United Kingdom.

https://media.ed.ac.uk/media/Effects+of+social+distancing+and+isolation+on+epidemic+spreading+modeled+via+dynamical+density+functional+theory+-+Michael+te+Vrugt/1_5sold0g0.

- [CC_19] M. te Vrugt* and R. Wittkowski,
“Orientational order parameters for arbitrary classical and quantum liquid crystals”,
March 24, 2021,
DPG Spring Meeting 2021 (virtual), Condensed Matter Section,
March 22–24, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/bpcppdysoe/part/dy/session/40/contribution/3>.
- [CC_20] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
“Effects of social distancing and isolation modeled via dynamical density functional theory”,
March 23, 2021,
DPG Spring Meeting 2021 (virtual), Condensed Matter Section,
March 22–24, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/bpcppdysoe/part/dy/session/25/contribution/5>.
- [CC_21] J. Bickmann and R. Wittkowski*,
“Predictive local field theories for interacting active Brownian spheres”,
March 23, 2021,
DPG Spring Meeting 2021 (virtual), Condensed Matter Section,
March 22–24, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/bpcppdysoe/part/dy/session/23/contribution/3>.
- [CC_22] S. Raghuraman*, R. Wittkowski, and T. Betz,
“The dynamics of burst-like collective migration in 3D cancer spheroids”,
March 22, 2021,
DPG Spring Meeting 2021 (virtual), Condensed Matter Section,
March 22–24, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/bpcppdysoe/part/bp/session/1/contribution/2>.
- [CC_23] J. Bickmann, J. Jeggle, S. Bröker, J. Stenhammar, and R. Wittkowski*,
“Predictive modeling of interacting active Brownian particles”,
March 19, 2021,
APS March Meeting 2021 (virtual),
March 15–19, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-03_APS_Talk_RW.mp4,
<http://meetings.aps.org/Meeting/MAR21/Session/Y17.9>.
- [CC_24] M. te Vrugt, J. Jeggle*, and R. Wittkowski,
“Jerky active matter: a phase field crystal model with translational and orientational memory”,
March 19, 2021,

- APS March Meeting 2021 (virtual),
 March 15–19, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-03_APS_Talk_JJ.mp4,
<http://meetings.aps.org/Meeting/MAR21/Session/Y06.3>.
- [CC_25] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
 “Effects of social distancing and isolation modeled via dynamical density functional theory”,
 March 17, 2021,
 APS March Meeting 2021 (virtual),
 March 15–19, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-03_APS_Talk_MtV.mp4,
<http://meetings.aps.org/Meeting/MAR21/Session/P17.3>.
- [CC_26] C. Denz*, A. Jurado, M. Rüschenbaum, J. Hallekamp, J. Jeggle, and R. Wittkowski,
 “Light-driven microrobots: light fuels motion”,
 March 5, 2021,
 Conference “SPIE OPTO 2021” (virtual),
 March 6–12, 2021,
 California, United States.
<https://doi.org/10.1117/12.2589828>.
- [CC_27] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
 “Effects of social distancing and isolation on epidemic spreading: a dynamical density functional theory model”,
 September 22, 2020,
 Conference “DFT Days 2020” (virtual),
 September 21–23, 2020,
 Tübingen, Germany.
- [CC_28] J. Bickmann and R. Wittkowski*,
 “Predictive local field theory for interacting active Brownian spheres in two spatial dimensions”,
 March 20, 2020,
 DPG Spring Meeting 2020 (cancelled), Condensed Matter Section,
 March 15–20, 2020,
 Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2020/conference/dresden/part/dy/session/67/contribution/6>.
- [CC_29] M. te Vrugt* and R. Wittkowski,
 “Orientational order parameters for arbitrary quantum systems”,
 March 18, 2020,
 DPG Spring Meeting 2020 (cancelled), Condensed Matter Section,
 March 15–20, 2020,
 Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2020/conference/dresden/part/tt/session/33/contribution/12>.

- [CC_30] J. Voß and R. Wittkowski*,
“Hydrodynamic resistance matrices of colloidal particles with various shapes”,
March 17, 2020,
DPG Spring Meeting 2020 (cancelled), Condensed Matter Section,
March 15–20, 2020,
Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2020/conference/dresden/part/dy/session/26/contribution/11>.
- [CC_31] S. Raghuraman*, F. Abbasi, R. Wittkowski, and T. Betz,
“The dynamics of burst-like collective migration in 3D cancer spheroids”,
March 17, 2020,
DPG Spring Meeting 2020 (cancelled), Condensed Matter Section,
March 15–20, 2020,
Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2020/conference/dresden/part/bp/session/13/contribution/7>.
- [CC_32] M. te Vrugt* and R. Wittkowski,
“Relations between angular and Cartesian orientational expansions”,
March 17, 2020,
DPG Spring Meeting 2020 (cancelled), Condensed Matter Section,
March 15–20, 2020,
Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2020/conference/dresden/part/dy/session/24/contribution/3>.
- [CC_33] A. Jurado, R. Wittkowski, and C. Denz*,
“Photonic propulsion of artificial microswimmers”,
August 10, 2019,
Conference “SPIE Organic Photonics + Electronics 2019”,
August 11–15, 2019,
San Diego, California, United States.
<https://doi.org/10.1117/12.2530505>.
- [CC_34] J. Voß* and R. Wittkowski,
“Locomotion of self-acoustophoretic colloidal particles”,
April 4, 2019,
DPG Spring Meeting 2019, Condensed Matter Section,
March 31–April 5, 2019,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2019/conference/regensburg/part/dy/session/44/contribution/8>.
- [CC_35] S. Bröker*, J. Bickmann, and R. Wittkowski,
“Pair-distribution function of active Brownian particles in three spatial dimensions”,
April 4, 2019,
DPG Spring Meeting 2019, Condensed Matter Section,
March 31–April 5, 2019,
University of Regensburg, Regensburg, Germany.

<https://www.dpg-verhandlungen.de/year/2019/conference/regensburg/part/dy/session/44/contribution/7>.

- [CC_36] M. te Vrugt* and R. Wittkowski,
“Mori-Zwanzig formalism for systems with time-dependent Hamiltonians”,
April 2, 2019,
DPG Spring Meeting 2019, Condensed Matter Section,
March 31–April 5, 2019,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2019/conference/regensburg/part/dy/session/21/contribution/4>.
- [CC_37] T. Nitschke and R. Wittkowski*,
“Collective guiding of self-acoustophoretic particles in complex environments”,
April 1, 2019,
DPG Spring Meeting 2019, Condensed Matter Section,
March 31–April 5, 2019,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2019/conference/regensburg/part/dy/session/3/contribution/8>.
- [CC_38] R. Wittkowski*,
“Field theories for the collective dynamics of active Brownian particles”,
March 3, 2019,
23rd Harz Seminar “Structure Formation in Chemistry and Biophysics”,
March 3–5, 2019,
Hahnenklee-Bockswiese, Goslar, Germany.
- [CC_39] N. Oliver, A. Jurado*, R. Wittkowski, and C. Denz,
“Micro-sized synthesis of customized 3D GRadient INdex elements by femtosecond laser lithography”,
May 23, 2018,
119th Annual Meeting of the German Society of Applied Optics (DGaO),
May 21–26, 2018,
Aalen University of Applied Sciences, Aalen, Germany.
- [CC_40] N. Oliver, A. Jurado*, R. Wittkowski, and C. Denz,
“Micro-sized synthesis of customized 3D GRadient INdex elements by femtosecond laser lithography”,
March 5, 2018,
DPG Spring Meeting 2018, Condensed Matter Section,
March 4–9, 2018,
University of Erlangen-Nuremberg, Erlangen, Germany.
<https://www.dpg-verhandlungen.de/year/2018/conference/erlangen/part/q/session/3/contribution/8>.
- [CC_41] S. Praetorius*, A. Voigt, R. Wittkowski, and H. Löwen,
“Active crystals on the sphere”,
March 23, 2017,
DPG Spring Meeting 2017, Condensed Matter Section,
March 19–24, 2017,

- Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2017/conference/dresden/part/dy/session/41/contribution/11>.
- [CC_42] H. Löwen*, B. ten Hagen, F. Kümmel, R. Wittkowski, and C. Bechinger, “Gravitaxis of asymmetric microswimmers”, July 24, 2014, 9th Liquid Matter Conference, July 21–25, 2014, University of Lisbon, Lisbon, Portugal.
- [CC_43] F. Kümmel*, B. ten Hagen, R. Wittkowski, H. Löwen, and C. Bechinger, “Gravitaxis of asymmetric microswimmers”, April 3, 2014, DPG Spring Meeting 2014, Condensed Matter Section, March 30–April 4, 2014, Dresden University of Technology, Dresden, Germany.
<https://www.dpg-verhandlungen.de/year/2014/conference/dresden/part/cpp/session/39/contribution/2>.
- [CC_44] D. Kraft*, R. Wittkowski, O. Dlugosch, H. Löwen, and D. Pine, “Colloidal samaras”, March 7, 2014, APS March Meeting 2014, March 3–7, 2014, Colorado Convention Center, Denver, Colorado, United States.
<https://meetings.aps.org/Meeting/MAR14/Session/Z18.1>.
- [CC_45] H. Löwen*, A. Kaiser, A. M. Menzel, R. Wittkowski, B. ten Hagen, J. Bialké, and T. Speck, “Statistical physics of colloids: from passive to active particles”, July 26, 2013, 25th International Conference on Statistical Physics (STATPHYS 25), International Union of Pure and Applied Physics, July 22–26, 2013, Seoul National University, Seoul, South Korea.
- [CC_46] D. Kraft*, R. Wittkowski, H. Löwen, and D. Pine, “Determination of the hydrodynamic friction matrix for various anisotropic particles”, March 18, 2013, APS March Meeting 2013, March 18–22, 2013, Baltimore Convention Center, Baltimore, Maryland, United States.
<http://meetings.aps.org/Meeting/MAR13/Session/A30.7>.
- [CC_47] B. ten Hagen*, F. Kümmel, R. Wittkowski, I. Buttinoni, G. Volpe, C. Bechinger, and H. Löwen, “Two-dimensional active Brownian motion of asymmetric microswimmers”, March 14, 2013, DPG Spring Meeting 2013, Condensed Matter Section,

March 10–15, 2013,
University of Regensburg, Regensburg, Germany.
<https://www.dpg-verhandlungen.de/year/2013/conference/regensburg/part/cpp/session/41/contribution/5>.

- [CC_48] H. Löwen*, A. Kaiser, H. H. Wensink, R. Wittkowski, B. ten Hagen, J. Bialké, and T. Speck,
“Collective dynamics of self-propelled particles”,
February 21, 2013,
Workshop “Wetting and Capillarity in Complex Systems”,
February 18–22, 2013,
Max Planck Institute for the Physics of Complex Systems, Dresden, Germany.
- [CC_49] H. Löwen*, A. Kaiser, H. H. Wensink, R. Wittkowski, B. ten Hagen, J. Bialké, and T. Speck,
“Clustering and turbulence in active colloidal fluids”,
October 4, 2012,
Conference “Nonequilibrium Collective Dynamics: Bridging the Gap between Hard and Soft Materials”,
October 1–4, 2012,
Potsdam, Germany.
- [CC_50] H. Löwen*, A. Kaiser, H. H. Wensink, R. Wittkowski, B. ten Hagen, J. Bialké, and T. Speck,
“Collective behaviour of active colloidal particles”,
September 20, 2012,
Workshop “Statistical Mechanics: Interplay of Theory and Computer Simulations”,
September 19–21, 2012,
Johannes Gutenberg University Mainz, Mainz, Germany.
- [CC_51] H. Löwen*, A. Kaiser, R. Wittkowski, H. H. Wensink, J. Bialké, and T. Speck,
“Transport in strongly interacting active colloids”,
July 25, 2012,
Workshop “Complex transport in strongly interacting systems”,
July 25–27, 2012,
Arnold Sommerfeld Center for Theoretical Physics, Munich, Germany.
- [CC_52] H. Löwen*, H. H. Wensink, R. Wittkowski, and B. ten Hagen,
“Colloids in external fields: from passive to active particles”,
November 16, 2011,
Workshop “9th Jülich Soft Matter Days”,
November 16–18, 2011,
Gustav Stresemann Institute, Bonn, Germany.

i) Contributed seminar talks

- [SC_1] M. te Vrugt*, S. Hossenfelder, and R. Wittkowski,

- “Mori-Zwanzig formalism for general relativity: a new approach to the averaging problem”,
 December 20, 2021,
 Research seminar “Quantum Field Theory”,
 University of Münster, Münster, Germany.
- [SC_2] A. I. Campbell, R. Wittkowski*, B. ten Hagen, H. Löwen, and S. J. Ebbens,
 “Mass-anisotropic self-propelled Janus particles”,
 July 11, 2016,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
- [SC_3] R. Wittkowski*,
 “Self-acoustophoretic particles”,
 February 17, 2016,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
- [SC_4] R. Wittkowski*,
 “Dynamical density functional theory for colloidal particles with arbitrary shape”,
 October 19, 2012,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
- [SC_5] R. Wittkowski* and H. Löwen,
 “Brownian dynamics of a self-propelled colloidal particle with arbitrary shape”,
 July 13, 2012,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
- [SC_6] R. Wittkowski*, H. R. Brand, and H. Löwen,
 “Polar liquid crystals: the bridge from microscopic to macroscopic approaches”,
 May 20, 2011,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
- [SC_7] R. Wittkowski*, C. V. Achim, and H. Löwen,
 “The phase diagram of the phase-field-crystal model for liquid crystals”,
 December 3, 2010,
 Seminar “Special Problems in Colloidal Physics”,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.

j) Contributed other talks

- [OC_1] R. Wittkowski*,
 “Phase-field-crystal models for liquid crystals”,
 March 1, 2016,
 Network Meeting of the Alexander von Humboldt Foundation,
 February 29–March 2, 2016,
 Heinrich Heine University Düsseldorf, Düsseldorf, Germany.

k) Contributed conference posters

- [PC_1] M. te Vrugt*, T. Frohoff-Hülsmann, E. Heifetz, U. Thiele, and R. Wittkowski, “From a microscopic inertial active matter model to the Schrödinger equation”, September 8, 2022, DPG Meeting 2022, Condensed Matter Section, September 4–9, 2022, University of Regensburg, Regensburg, Germany. <https://www.dpg-verhandlungen.de/year/2022/conference/regensburg/part/dy/session/46/contribution/3>.
- [PC_2] P. A. Monderkamp, R. Wittmann, M. te Vrugt*, A. Voigt, R. Wittkowski, and H. Löwen, “Topological fine structure of smectic grain boundaries and tetratic disclination lines within three dimensional smectic liquid crystals”, September 8, 2022, DPG Meeting 2022, Condensed Matter Section, September 4–9, 2022, University of Regensburg, Regensburg, Germany. <https://www.dpg-verhandlungen.de/year/2022/conference/regensburg/part/dy/session/46/contribution/2>.
- [PC_3] M. te Vrugt*, T. Frohoff-Hülsmann, E. Heifetz, U. Thiele, and R. Wittkowski, “From a microscopic inertial active matter model to the Schrödinger equation”, July 5, 2022, CECAM Workshop “New frontiers in liquid matter”, July 4–7, 2022, Sorbonne Université, Paris, France.
- [PC_4] M. te Vrugt*, J. Bickmann, and R. Wittkowski, “Effects of social distancing and isolation on epidemic spreading modeled via dynamical density functional theory”, March 21, 2022, French-German WE-Heraeus-Seminar “Outstanding Challenges in Nonlinear Dynamics”, March 20–25, 2022, École de Physique, Les Houches, France.
- [PC_5] M. te Vrugt*, S. Hossfelder, and R. Wittkowski, “Mori-Zwanzig formalism for general relativity: a new approach to the averaging problem”, January 7, 2022, Conference “Dynamics Days 2022” (virtual), January 7–8, 2022.
- [PC_6] M. te Vrugt* and R. Wittkowski, “Orientational order parameters for arbitrary quantum systems”, September 28, 2021, DPG Meeting 2021 (virtual), Condensed Matter Section, September 27–October 1, 2021.

https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-09_DPG_Poster_MtV.mp4,
<https://www.dpg-verhandlungen.de/year/2021/conference/skm/part/tt/session/9/contribution/36>.

- [PC_7] M. te Vrugt*, J. Jeggle, and R. Wittkowski,
“Jerky active matter – a phase field crystal model with translational and orientational memory”,
September 9, 2021,
5th Edwards Symposium “Future Directions in Soft Matter”,
September 8–10, 2021,
University of Cambridge, Cambridge, United Kingdom.
- [PC_8] R. Wittkowski, M. te Vrugt*, J. Jeggle, H. Löwen, and H. R. Brand,
“Extended dynamical density functional theory including momentum density”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,
Prague, Czech Republic.
- [PC_9] M. te Vrugt* and R. Wittkowski,
“Orientational order parameters for arbitrary classical and quantum liquid crystals”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,
Prague, Czech Republic.
- [PC_10] M. te Vrugt*, J. Jeggle, and R. Wittkowski,
“Jerky active matter: a phase field crystal model with translational and orientational memory”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,
Prague, Czech Republic.
- [PC_11] M. te Vrugt*, J. Bickmann, and R. Wittkowski,
“Effects of social distancing and isolation modeled via dynamical density functional theory”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,
Prague, Czech Republic.
- [PC_12] J. Jeggle, J. Bickmann, J. Stenhammar, and R. Wittkowski*,
“Pair-distribution function of active Brownian spheres: simulation results and analytic representation”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,
Prague, Czech Republic.
- [PC_13] J. Voß and R. Wittkowski*,
“Nano- and microparticles propelled by traveling ultrasound waves: shape-dependence of the propulsion and collective dynamics”,
11th Liquid Matter Conference 2020/2021 (virtual),
July 19–23, 2021,

Prague, Czech Republic.

- [PC_14] M. te Vrugt*, J. Jeggle, and R. Wittkowski,
“Jerky active matter: a phase field crystal model with translational and orientational memory”,
March 22, 2021,
DPG Spring Meeting 2021 (virtual), Condensed Matter Section,
March 22–24, 2021.
<https://www.dpg-verhandlungen.de/year/2021/conference/bpcppdysoe/part/dy/session/12/contribution/1>.
- [PC_15] M. te Vrugt* and R. Wittkowski,
“Orientational order parameters for arbitrary quantum systems”,
March 18, 2021,
APS March Meeting 2021 (virtual),
March 15–19, 2021.
https://www.uni-muenster.de/Physik.TP/~wittkowski/informationen/2021-03_APS_Poster_MtV.mp4,
<http://meetings.aps.org/Meeting/MAR21/Session/U71.62>.
- [PC_16] A. R. Sprenger*, M. A. Fernandez-Rodriguez, L. Alvarez, L. Isa, A. Ldov, C. Scholz, R. Wittkowski, and H. Löwen,
“Active Brownian motion with orientation-dependent motility”,
October 28, 2020,
Conference “Motile Active Matter” (virtual),
October 26–29, 2020,
Center of Advanced European Studies and Research, Bonn, Germany.
- [PC_17] M. te Vrugt* and R. Wittkowski,
“Mori-Zwanzig projection operator formalism for systems with time-dependent Hamiltonians”,
July 8, 2019,
27th International Conference on Statistical Physics (STATPHYS 27), International Union of Pure and Applied Physics,
July 8–12, 2019,
Pontifical Catholic University of Argentina, Buenos Aires, Argentina.
<https://statphys27.df.uba.ar/registration/index.php/SP27/MainConference/paper/view/332>.
- [PC_18] J. Bickmann* and R. Wittkowski,
“Field theories for active Brownian particles”,
April 2, 2019,
Bad Honnef Physics School “Physics of Strongly Coupled Systems”,
March 31–April 5, 2019,
Physikzentrum Bad Honnef, Bad Honnef, Germany.