

Curriculum Vitae – Anders Andersen

PERSONAL INFORMATION

Name: Andersen, Anders Date of birth: 10 February 1974
Researcher ID: [A-5741-2011](#) Nationality: Danish
ORCID: [0000-0002-3831-1707](#) E-mail: aanders@fysik.dtu.dk
URL for websites: [FLUIDS section](#) and [Complex Motion in Fluids Group](#)



EDUCATION

2002 PhD in physics, Department of Physics, Technical University of Denmark
Supervisors: Professor Tomas Bohr and Professor Jens Juul Rasmussen
1999 MSc in physics and chemistry, Niels Bohr Institute, University of Copenhagen
Supervisor: Professor Andrew D. Jackson

CURRENT POSITION

2010 – Associate Professor, Department of Physics, Technical University of Denmark

PREVIOUS POSITIONS

2006 – 2010 Assistant Professor, Department of Physics, Technical University of Denmark
2002 – 2005 Postdoctoral Associate, Department of Theoretical and Applied Mechanics,
Cornell University, United States of America

RESEARCH AREA

My research focuses on fluid flows in a variety of physical and biological systems. I work currently on two main topics, namely the hydrodynamics of swimming, feeding, and predator avoidance of small aquatic organisms and instabilities and structures in vortex flows and free surface flows.

PUBLICATIONS

WoS publications: 35 Citations: 762 H-index: 13
Year of first WoS publication: 1999 Citation impact: 22
Other publications: Peer-reviewed book chapters: 1, popular science and outreach publications: 5

FIVE SELECTED PUBLICATIONS

1. **A. Andersen**, T. Bohr, B. Stenum, J. Juul Rasmussen, and B. Lautrup, [Anatomy of a Bathtub Vortex](#), Physical Review Letters **91**, 104502, 4 pages (2003).
2. **A. Andersen**, U. Pesavento, and Z. J. Wang, [Unsteady aerodynamics of fluttering and tumbling plates](#), Journal of Fluid Mechanics **541**, 65-90 (2005).
3. J. Dölger, L. T. Nielsen, T. Kiørboe, and **A. Andersen**, [Swimming and feeding of mixotrophic biflagellates](#), Scientific Reports **7**, 39892, 10 pages (2017).
4. L. T. Nielsen, S. S. Asadzadeh, J. Dölger, J. H. Walther, T. Kiørboe, and **A. Andersen**, [Hydrodynamics of microbial filter feeding](#), Proc. Natl. Acad. Sci. USA **114**, 9373–9378 (2017).
5. J. Dölger, T. Kiørboe, and **A. Andersen**, [Dense dwarfs versus gelatinous giants: The trade-offs and physiological limits determining the body plan of planktonic filter feeders](#), The American Naturalist **194**, E30-E40 (2019).

GRANTS (2013-present)

- “Centre for Ocean Life”, The Centre for Ocean Life is a Centre of Excellence supported by the Villum Foundation, 2012-2017, PI Professor Thomas Kiørboe (DTU Aqua), total budget: 30.000.000 DKK, co-PI, budget: 2.090.000 DKK.

- “Bølge-partikel dualitet på makroskopisk skala”, equipment financed by the Carlsberg Foundation, 2014-2015, PI, total budget: 150.000 DKK.
- “Formation of Shocks on Fluid Surfaces”, equipment financed by Brødrene Hartmanns Fond, 2017, PI, total budget: 87.811 DKK.
- “The physics of microbial feeding: mechanisms and trade-offs”, project financed by The Danish Council for Independent Research, Natural Sciences, 2018-2021, PI Professor Thomas Kiørboe (DTU Aqua), total budget: 5.821.983 DKK, co-PI, budget: 1.945.359 DKK.
- “High-speed camera for explorations of complex fluid flows”, equipment financed by the Carlsberg Foundation, 2018, PI, total budget: 206.000 DKK.

SUPERVISION (2013-present)

Postdoc	Dr. Lasse Tor Nielsen (DK) 2013-2018, co-supervisor Dr. Alexis Duchesne (FR) 2016-2018, co-supervisor Dr. Julia Dölger (DE) 2017-2018, principal supervisor
PhD	Mr. Navish Wadhwa (IN) 2012-2015, principal supervisor Ms. Julia Dölger (DE) 2014-2017, principal supervisor Mr. Mads Rode (DK) 2018-2021, principal supervisor Ms. Sei Suzuki (CA) 2018-2022, co-supervisor Mr. Kristian Maar (DK) 2019-2022, co-supervisor
MSc	Mr. Mads Rode (DK) 2016, principal supervisor Mr. Ali Bioue (DK) 2019-2020, principal supervisor

TEACHING ACTIVITIES

2006 –	MSc course: Continuum Physics, 5 ECTS (10346), main responsible
2013 –	MSc course: Theoretical Microfluidics, 5 ECTS (10337), main responsible
2014	MSc course: Fundamental Problems Fluid Dyn., 5 ECTS (10336), co-responsible
2007 –	BSc course: Experimental Methods and Instrumentation in Physics, 5 ECTS (10467), co-responsible 2007-2014 and main responsible since 2015
2006 – 2007	BSc course: Physics 1, 5 ECTS (10931), main responsible
2010 – 2013	BSc course: Physics 2, 5 ECTS (10044), main responsible

INSTITUTIONAL RESPONSIBILITIES

2006 – 2011	Co-organizer of the monthly general physics colloquium series at the Department of Physics, Technical University of Denmark
2014 – 2015	Coordinator and co-organizer of more than 30 seminars in the Fluid DTU seminar series for the fluid dynamics community at the Technical University of Denmark

COMMISSIONS OF TRUST

- Reviewer for Physical Review Letters, Physical Review E, Physical Review Fluids, Journal of Fluid Mechanics, Physics of Fluids, Experiments in Fluids, Proceedings of the National Academy of Sciences USA, and Journal of the Royal Society Interface.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2001 –	Member of the American Physical Society, United States of America
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MAJOR COLLABORATIONS

- Professor Tomas Bohr, fluid dynamics, Department of Physics, Technical University of Denmark
- Professor Thomas Kiørboe, plankton hydrodynamics, DTU Aqua and Centre for Ocean Life
- Professor Jens H. Walther, computational fluid dynamics, Department of Mechanical Engineering, Technical University of Denmark and ETH Zürich, Switzerland
- Associate Professor Marco Polin, plankton hydrodynamics, University of Warwick, UK