# 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

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

## CURRENT POSITION

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

## PREVIOUS POSITIONS

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| 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: 31 | Citations: 628 | H-index: 11

Year of first WoS publication: 1999 | Citation impact: 20

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. **A. Andersen**, J. Madsen, C. Reichelt, S. Rosenlund Ahl, B. Lautrup, C. Ellegaard, M. T. Levinsen, and T. Bohr, Double-slit experiment with single wave-driven particles and its relation to quantum mechanics, Physical Review E **92**, 013006, 14 pages (2015).
4. J. Dölger, L. T. Nielsen, T. Kiørboe, and **A. Andersen**, Swimming and feeding of mixotrophic biflagellates, Scientific Reports **7**, 39892, 10 pages (2017).
5. 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).

## 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)**

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| 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) 2018-2021, co-supervisor |
| MSc | Mr. Mads Rode (DK), 2016, principal supervisor |

**TEACHING ACTIVITIES**

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| 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 in Fluid Dynamics, 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**

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| 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 Royal Society Interface.
- Reviewer for the MacArthur Fellows Program, United States of America, 2015.

**MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

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

**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
- Assistant Professor Marco Polin, plankton hydrodynamics, University of Warwick, UK