

Curriculum vitae of Kåre Hartvig Jensen

Kåre Hartvig Jensen

Born 2 July 1980 in Køge, Denmark. Danish citizen.



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Languages: Danish (mothertongue), English (fluent)

Academic education

B.Sc. In Physics	Niels Bohr Institute, University of Copenhagen	June 2005
B.Sc. In Mathematics	University of Copenhagen	June 2005
M.Sc. In Physics	Niels Bohr Institute, University of Copenhagen	June 2007
Ph.D.	Technical University of Denmark	March 2011

Employment history

Oct 2001 - Jun 2007:	Editor and co-Editor of Gamma (http://www.gamma.nbi.dk), a physics magazine published by the Niels Bohr Institute, University of Copenhagen
Feb 2006 - Jun 2007:	Student worker , Center for Molecular Movies, The Niels Bohr Institute. University of Copenhagen
Aug 2007 - Jan 2011:	PhD Student at DTU Nanotech under the supervision of Prof. Henrik Bruus, Technical University of Denmark
Feb 2011 - present	Postdoctoral Research Fellow , Department of Physics, Complex Motion in Fluids Group, Technical University of Denmark

Leave periods

Feb 2010 - Jul 2010:	Paternity leave.
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Research experience

Aug 2007 - present: Part of the Danish National Research Foundation *Center for Fluid Dynamics*, **Technical University of Denmark**

International experience

Jun 2008 - Sep 2008: **Visiting researcher** in the group of Prof. N. M. Holbrook, Department of Organismic and Evolutionary Biology, **Harvard University**, Cambridge, USA

List of publications

Peer-reviewed publications

1. **K. H. Jensen**, J. Lee, T. Bohr, H. Bruus, N. M. Holbrook, and M. A. Zwieniecki, *Optimality of the Münch mechanism for translocation of sugars in plants*, Journal of the Royal Society Interface, doi:10.1098/rsif.2010.0578 (2011)
2. **K. H. Jensen**, T. Bohr, and H. Bruus, *Self consistent unstirred layers in osmotically driven flows*, Journal of Fluid Mechanics, Volume **662**, pp 197-208 (2010)
3. **K. H. Jensen**, E. Rio, R. Hansen, C. Clanet and T. Bohr, *Osmotically driven pipe flows and their relation to sugar transport in plants*, Journal of Fluid Mechanics, Volume **636**, pp 371-396 (2009)
4. **K. H. Jensen**, J. Lee, T. Bohr, and H. Bruus, *Osmotically driven flows in microchannels separated by a semipermeable membrane s*, Lab Chip **9**, 2093-2099 (2009)
5. **K. H. Jensen**, M.N. Alam, B. Scherer, A. Lambrecht and N.A. Mortensen, *Slow-light enhanced light-matter interactions with applications to gas sensing*, Optics Communications, Volume **281**, Issue 21, p. 5335-5339 (2008)
6. T. R. N. Jansson, M. P. Haspang, **K. H. Jensen**, P. Hersen, and T. Bohr, *Polygons on a Rotating Fluid Surface*, Phys. Rev. Lett. **96**, 174502 (2006)

Other Publications

Conference contributions

1. H. Bruus, **K. H. Jensen** and T. Bohr, *Self-consistent unstirred layers in osmotically driven flow*, Annual Meeting of the APS Division of Fluid Dynamics, Long Beach, USA, Paper MM.00005. Bull. Amer. Phys. Soc. **55**(16) (2010)

2. T. Bohr, **K. H. Jensen**, J. Lee, M. Zwieniecki and N. M. Holbrook, *Optimality and universal scaling for osmotically driven translocation of sugars in plants*. Annual Meeting of the APS Division of Fluid Dynamics, Long Beach, USA, Paper CL.00003. Bull. Amer. Phys. Soc. **55**(16) (2010)
3. **K. H. Jensen**, J. Lee, T. Bohr, J. Lee, N. M. Holbrook and M. Zwieniecki, *Optimality of the Münch hypothesis for translocation of sugars in plants*, International Conference on Plant Vascular Biology 2010, Columbus, USA. (2010)
4. **K.H. Jensen**, T. Bohr and H. Bruus, *Concentration boundary layers in osmotic membrane transport processes*, Annual Meeting of the APS Division of Fluid Dynamics, Minneapolis, USA, Paper MF.00002. Bull. Amer. Phys. Soc. **54** (19) (2009)
5. **K.H. Jensen**, T. Bohr and H. Bruus, *Osmotically driven flows in microchannels and their relation to sugar transport in plants*, 1st Nordic Meeting in Physics, Copenhagen, Paper BF.4 (2009)
6. E. Rio, R. Hansen, **K.H. Jensen**, T. Bohr and C. Clanet, *Osmotically driven pipe flows*, Annual Meeting of the APS Division of Fluid Dynamics, Tampa Bay, Paper GA.00004. Bull. Amer. Phys. Soc. **51**(9) (2006)
7. T. Bohr, P. Hersen, T. R. N. Jansson, M. P. Haspang and **K. H. Jensen**, *Polygons on a Rotating Fluid Surface*, The 6th Euromech Fluid Mechanics Conference, Stockholm (2006)
8. T. R. N. Jansson, M. P. Haspang, **K. H. Jensen**, P. Hersen and T. Bohr, *Polygons on a Rotating Fluid Surface*, Second International Symposium on Instability and Bifurcations in Fluid Dynamics, Copenhagen (2006)

Popular science (in danish)

1. **K. H. Jensen** *Synkronisering af vejtrækning og hjerteslag* , Gamma **145** (2007)
2. - Celler og flokdyr, Gamma **144** (2006)
3. - *Partikelfiltre baseret på nanorør*, Gamma **142** (2006)
4. - *Kritikalitet i arktiemarkedet*, Gamma, **141** (2006)
5. - og T. R. N. Jansson, *Open source programmer til videnskabelig brug*, Gamma **140** (2005)
6. - *Kaoskryptering*, Gamma, **140** (2005)
7. - *Myten om kviksand lagt på hylden*, Gamma **139** (2005)
8. - *Vejer et kilo ét kilo? Om kilogrammets historie*, Gamma **138** (2005)
9. - *Luftbobler mindsker gnidningsmodstant i vand*, Gamma **137** (2005)
10. - *Antenne til synligt lys*, Gamma **135** (2004)
11. - *Paritetsbrud i elektron elektron spredning*, Gamma **134** (2004)
12. - *Grundstof nummer 115 fundet*, Gamma **133** (2004)
13. - *Relativitetsteorien kompatibel med kaosteorien*, Gamma **132** (2003)
14. - *Gravitationshastigheden forsøgt målt*, Gamma **129** (2003)
15. - *Dommedag udsat – indtil videre*, Gamma **127** (2002)

16. - *Bohrs breve til Heisenberg offentliggjort*, Gamma **125** (2002)

17. - *Mars Odyssey*, Gamma **124** (2001)

PhD Thesis

1. **K. H. Jensen**, *Osmotically driven flows in microfluidic systems and their relation to sugar transport in plants*. Department of Micro- and Nanotechnology, Technical University of Denmark. Advisor prof. Henrik Bruus (2011). Available at <http://www.hartvig.de>

Master thesis

2. **K. H. Jensen**, *Osmotically driven flows and their relation to sugar transport in plants*. The Niels Bohr Institute, The University of Copenhagen. Supervised by professor Tomas Bohr and professor Mogens Høgh Jensen (2007). Available at <http://www.hartvig.de>

Bachelor thesis

1. **K. H. Jensen**, T. R. N. Jansson and M. P. Haspang *Symmetry breaking in the free surface of rotating fluids with high Reynolds numbers*. The Niels Bohr Institute, The University of Copenhagen. Supervised by professor Tomas Bohr (2005). Available at <http://www.hartvig.de>