

## ***List of publications by Hemming A. Schäffer***

### ***Journal Publications***

- Schäffer, HA (2008): A fast convolution approach to the transformation of surface gravity waves: Linear waves in 1DH. Submitted, May 2008.
- Schäffer, HA (2008): Comparison of Dirichlet–Neumann operator expansions for nonlinear surface gravity waves. *Coastal Engineering* 55, pp 288-294.
- Zhang H, Schäffer HA (2007). Approximate Stream Function wavemaker theory for highly non-linear waves in wave flumes. *Ocean Engineering* 34, pp 1290-1302
- Zhang H, Schäffer HA, Jakobsen KP (2007). Deterministic combination of numerical and physical coastal wave models. *Coastal Engineering* 54, pp 171-186.
- Madsen, PA and Schäffer HA (2005): A discussion of artificial compressibility. *Coastal Engineering* 53, pp 93-98.
- Schäffer, HA, and Sørensen, OR (2005). On the internal wave generation in Boussinesq and mild-slope equations. *Coastal Engineering* 53, pp 319-23.
- Bredmose, H, Agnon, Y, Madsen PA, and Schäffer HA (2005): Wave transformation models with exact second-order transfer. *European Journal of Mechanics - B/Fluids*, 24(6), pp 659-682.
- Bredmose, H, Schäffer, HA and Madsen, PA (2004): Boussinesq evolution equations: Numerical efficiency, breaking and amplitude dispersion. *Coastal Engineering* 51, pp 1117-1142.
- Schäffer, HA (2004): Accurate determination of internal kinematic from numerical wave model results. *Coastal Engineering* 50, pp 199-211.
- Sørensen, OR, Schäffer, HA, and Sørensen LS (2004): Boussinesq-type modelling using an unstructured finite element technique. *Coastal Engineering* 50, pp 181-198.
- Madsen, PA; Bingham, HR; and Schäffer, HA (2003): Boussinesq-type formulations for fully non-linear and extremely dispersive water waves: Derivation and analysis. *Proc. Roy Soc., London A*, Vol 459, pp 1075-1104.
- Schäffer, HA; and Steenberg, CM (2003): Second-order wavemaker theory for multidirectional waves. *Ocean Engineering* 30, pp 1203-1231.
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- Schäffer, HA; and PA Madsen (1999): Further discussions related to ‘A formal derivation and numerical modelling of the improved Boussinesq equations for varying depth’ by Beji & Nadaoka. *Ocean Engineering* 26, pp 1057-1062.
- Otta, AK; and HA Schäffer (1999): Finite amplitude analysis of some Boussinesq-type equations. *Coastal Engineering* 36 (4), pp 323-342.
- Agnon, Y; Madsen, PA; and Schäffer, HA (1999): A new approach to high order Boussinesq Models. *J Fluid Mechanics*, Vol 399, pp 319-333.
- Madsen, PA; and Schäffer, HA (1998): Higher-order Boussinesq-type equations for surface gravity waves: derivation and analysis. *Phil Trans R Soc Lond A*, Vol 356, pp 3123-3184.
- Chen, Q; Madsen, PA; Schäffer, HA; and Basco, DR (1998): Wave-current interaction based on an enhanced Boussinesq approach. *Coastal Engineering* 33, pp 11-40.
- Schäffer, HA; and PA Madsen (1998): Discussion of ‘A formal derivation and numerical modelling of the improved Boussinesq equations for varying depth’ by Beji & Nadaoka. *Ocean Engineering* 25 (6), pp 497-500.
- Madsen, PA; Sørensen, O; and Schäffer, HA (1997): Surf zone dynamics simulated by a Boussinesq type model. Part 1: Model description and cross-shore motion of regular waves. *Coastal Engineering* 32 (4), pp 255-287.
- Madsen, PA; Sørensen, O; and Schäffer, HA (1997): Surf zone dynamics simulated by a Boussinesq type model. Part 2: Surf beat and swash oscillations for wave groups and irregular waves. *Coastal Engineering* 32 (4), pp 289-319.
- Sørensen, O; Schäffer, HA; and Madsen, PA (1997): Surf zone dynamics simulated by a Boussinesq type model. Part 3: Wave induced horizontal nearshore circulations. *Coastal Engineering* 33 (2-3), pp 155-176.
- Schäffer, HA (1996): Second order wavemaker theory for irregular waves. *Ocean Engineering* 23 (1), pp 47-88.
- Madsen, PA; Banijamali, B; Sørensen, OR; and Schäffer, HA (1996): Non-linear wave dynamics in shallow water. *Physica Scripta*, Vol T67, pp 86-89.
- Schäffer, HA; and Madsen, PA (1995): Further enhancements of Boussinesq type equations. *Coastal Engineering* 26 (1-2), pp 1-14.
- Schäffer, HA (1994): Edge waves forced by short-wave groups. *J Fluid Mech*, 259, pp 125-148.
- Schäffer, HA (1993): Infragravity waves induced by short-wave groups. *J Fluid Mech*, Vol 247, pp 551-588.

- Schäffer, HA; Madsen, PA; and Deigaard, R (1993): A Boussinesq model for waves breaking in shallow water. *Coastal Engineering* 20 (3/4), pp 185-202.
- Schäffer, HA; and Jonsson, IG (1992): Edge waves revisited. *Coastal Engineering* 16 (4), pp 349-368.
- Svendsen, IA; Schäffer, HA; and Buhr Hansen, J (1987): The interaction between the undertow and the boundary layer flow on a beach. *J Geophys Res* 92, C11, pp 11845-56.

### ***Book Chapters and Theses***

- Madsen, PA; and Schäffer, HA (1998): A review of Boussinesq-type equations for gravity waves. *Advances in Coastal and Ocean Engineering*, Vol 5, World Scientific, edited by Philip L-F Liu. pp 1-94.
- Schäffer, HA (1990): Infragravity water waves induced by short-wave groups. PhD Thesis. Series paper 50, Inst Hydrodyn Hydr Eng, Tech Univ Denmark, 168 pp.

### ***International Conference and Workshop Publications***

- Schäffer, HA (2008): A fast convolution-type wave model in non-rectangular domain. Proc. 31th Int. Conf. Coastal Engng., Hamburg, Germany, 31 August – 5 September 2008.
- Schäffer, HA (2006): A convolution method for nonlinear, dispersive wave transformation over gently varying bathymetry. Proc. 30th Int. Conf. Coastal Engng., San Diego, California, USA, 2-8 September 2006.
- Zhang H., Schäffer HA, Bingham BH (2006). A method for generating highly nonlinear periodic waves in physical wave basins. The 21st International Workshop on Water Waves and Floating Bodies (IWWWFB). Loughborough, England, April, 2006
- Schäffer, HA (2005): A convolution method for 1-D nonlinear dispersive wave transformation over a mild-slope bottom. *Waves '05: Proc 5th Int. Symp. on Ocean Wave Measurement and Analysis*, Madrid, Spain, 3-7 July 2005, ASCE.
- Zhang, H and Schäffer, HA (2005): Waves in numerical and physical wave basins – a deterministic combination. *Waves '05: Proc 5th Int. Symp. on Ocean Wave Measurement and Analysis*, Madrid, Spain, 3-7 July 2005, ASCE.
- Schäffer, HA (2005): On the Dirichlet-Neumann operator for nonlinear water waves. Abstract proc. 20th International Workshop on Water Waves and Floating Bodies (IWWWFB20), Longyearbyen, Spitsbergen (Norway), 29th May - 1st June 2005.
- Schäffer, HA (2004): Another step towards a post-boussinesq wave model. Proc. 29<sup>th</sup> Int. Conf. Coastal Engng., Lisbon, Portugal, 19-24 September 2004.
- Zhang, H, and Schäffer, HA (2004): Waves in numerical and physical wave flumes – a deterministic combination. Proc 29th Int Conf on Coastal Engng, ICCE'2004, 19-26 September 2004, Lisbon, Portugal.
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- Schäffer, HA (2002): Internal Kinematics obtained from Numerical Wave Model Results. Proc 28th Int Conf on Coastal Engng, ICCE'2002, Vol 1, 7-12 July 2002, Cardiff City Hall, Cardiff, Wales, pp 439-447.
- Schäffer, HA (2001): Active Wave Absorption in Flumes and 3D Basins. *Waves '01: Proc 4th Int. Symp. on Ocean Wave Measurement and Analysis*, San Francisco, CA, USA, 2-6 September 2001, ASCE, pp 1200-1208.
- Bredmose, H; Schäffer, HA; and Madsen, PA (2001): Modelling of Wave Breaking in Bussinesq Evolution Equations. *Waves '01: Proc 4th Int. Symp. on Ocean Wave Measurement and Analysis*, San Francisco, CA, USA, 2-6 September 2001, ASCE, pp 914-923.
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