

## 1 Journal publications

- 1999** B. Hof, P.G.J. Lucas, T.Mullin, "Flow state multiplicity in convection", *Physics of Fluids*, **11**, 2815 (1999)
- 2003** B.Hof, A.Juel & T.Mullin, "Magnetohydrodynamic damping of convective flows in gallium", *J.Fluid Mech.*, **482**, pp 163-179
- B.Hof, A.Juel & T.Mullin, "Scaling of the turbulence transition threshold in a pipe" *Phys. Rev. Lett.*, **91**, 244502
- 2004** **Press Review on above article:**  
"New Experiments Set the Scale for the Onset of Turbulence in Pipe Flow"  
*Physics Today*, February 2004.
- B.Hof, A.Juel, T.Mullin, L.J. Zhao, D. Henry & H. Ben Hadid  
"Stability of convective flows in molten gallium."  
*J. Fluid Mech.*, **515**, pp 391-413
- B.Hof, C.W.H. van Doorne, J. Westerweel, F.T.M. Nieuwstadt,  
H. Faisst, B. Eckhardt, H.Wedin, R.Kerswell, F. Waleffe  
"Experimental observation of nonlinear travelling waves in turbulent pipe flow"  
*Science*, **305**, Issue90, pp 1594-1598
- Press Review on above article in:**  
*Scientific American, Physics World, Science Perspectives, Baltimore Sun*, etc.
- 2005** B.Hof, A.Juel & T.Mullin  
"Magnetohydrodynamic damping of oscillations in low Prandtl number convection", *J. Fluid. Mech.*, **545**, pp 193-201
- B.Hof, C.W.H. van Doorne, J. Westerweel, F.T.M. Nieuwstadt,  
"Turbulence regeneration in pipe flow at moderate Reynolds numbers threshold in a pipe" *Phys. Rev. Lett.*, **95**, 214502
- 2006** B. Hof, J. Westerweel, T.M. Schneider & B. Eckhardt,  
"Finite Lifetime of Turbulence in Pipe Flow."  
*Nature*, **443**, 05089, pp 59-62.
- Press Review on above article in:**  
*Nature Podcast, Nature News and Views, USA Today, Frankfurter Allgemeine Zeitung and various Dutch newspapers and Radio channels etc.*
- 2007** B. Eckhardt, T.M. Schneider, B. Hof, J. Westerweel,  
"Turbulence Transition in Pipe flow", *Annu. Rev. Fluid Mech.*  
**39**, pp 447-468.

- 2008** B.Hof, A. de Lozar, D.J. Kuik, J. Westerweel, "Repellor or attractor? Selecting the dynamical model for the onset of turbulence in pipe flow." *Phys. Rev. Lett.*, **101**, 214501
- 2009** A. de Lozar, B.Hof, "An experimental study of the decay of turbulent puffs in pipe flow", *Proc. Royal. Soc. A*, **367**, pp 589-599
- 2010** M. Avila, A. Willis, B.Hof "On the transient nature of localized pipe flow turbulence", *J. Fluid. Mech.*, **646**, pp 127-136
- B. Hof, A. de Lozar, M. Avila, X. Tu, T.M. Schneider "Eliminating turbulence in spatially intermittent flows" *Science* **327**, pp 1491-1494. ,
- Press Review on above article in:**  
*New York Times, Frankfurter Allgemeine Zeitung, Die Welt, Physics Today* etc.
- 2011** D. Samanta, A. de Lozar & B.Hof "Experimental investigation of laminar turbulent intermittency in pipe flow", *J. Fluid Mech.*, **681**, 193-204
- K. Avila, D. Moxey, A. de Lozar, M. Avila, D. Barkley & B. Hof "The onset of turbulence in pipe flow", *Science* , **333**, 192
- 2012** T. Lapp, M. Rohloff, J. Vollmer & B. Hof "Particle tracking for polydisperse sedimenting droplets in phase separation", *Exp. Fluids*, **52**, 1187
- A. de Lozar, F. Mellibovsky, M. Avila & B. Hof, "Experimental observation of the edge state in pipe flow", *Phys. Rev. Lett.*, **198**, 214502
- J. Blaschke, T. Lapp, B. Hof & J. Vollmer "Breath figures: nucleation, growth coalescence and the size distribution of droplets", *Phys. Rev. Lett.*, accepted
- M. Holzner, B. Song, M. Avila & B. Hof, "Lagrangian approach to laminar/turbulent interfaces in transitional pipe ow", *submitted*
- D. Samanta, Y. Dubief, M. Holzner, C. Schäfer, A. Morozov, C. Wagner & B. Hof, "Elasto-inertial turbulence " *submitted*

## 2 Outreach and laymen publications

My research has been discussed extensively in the media (see 'Press Review' in the publication section). I have also given talks to school classes at open days at the University of Manchester. In addition I have written several manuscripts for science magazines:

- 2006** B. Eckhardt, B. Hof, H. Faisst, Turbulenzübergang in der Rohrströmung: Die Lösung eines alten Rätsels, *Physik in unserer Zeit*, 37, 212-218
- 2010** B. Hof, T.M. Schneider, Turbulenz bändigen, *Physik in unserer Zeit*, 41, 163-164
- 2012** K. Avila, B. Hof, Der kritische Punkt der Rohrströmungen, *Spektrum der Wissenschaft*, p. 16-18, 3/2012