

Curriculum Vitae for P. Henrik Alfredsson

Date of birth
Nationality
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Education

1972	High School (Swedish: gymnasium)
1976	Civilingenjör in Engineering Physics (Teknisk Fysik), KTH
1983	Doctoral degree, Dept. of Mechanics, KTH
1985	Docent in mechanics, KTH

Positions held

1975/76	Teaching assistant, Dept Mechanics, KTH (part time)
1977 - 1983	Research Assistant, Dept Mechanics, KTH
1984 - 1986	Research Associate, Dept Mechanics, KTH
1986 - 1989	Extra Professor in Applied Mechanics, especially measurement techniques in fluid dynamics. Dept Mechanics, KTH
1989 - 2019	Professor in Fluid Physics, Dept Gasdynamics (-92)/Mechanics (92-), KTH
1989 - 2014	Head of the Fluid physics laboratory, KTH Mechanics
1989 - 1992	Chairman ("prefekt") Department of Gasdynamics
1992 - 1995	Vice chairman ("proprefekt") Department of Mechanics
1995 - 1999	Vice Dean and Dean, School of Engineering Physics, KTH
1999 - 2003	Dean of Faculty for Engineering and Science, KTH
1999 - 2003	Chairman of the AlbaNova University Center
2005	KTH Mechanics Department chairman ("prefekt") (Jan. 1 - June 30)
2005 - 2010	Director of the Competence centre KTH CICERO, Centre for Internal Combustion Engine Research Opus
2007 - 2017	Adjunct professor at II Facolta di Ingegneria, Universita di Bologna, Forli, Italy
2019 -	Professor emeritus with scientific activity at KTH

Teaching experience

Undergraduate courses: Mechanics, Fluid Mechanics, Thermodynamics

Undergraduate and graduate courses: Turbulence, Boundary layer theory, Experimental methods in fluid mechanics, Compressible flow, Advanced compressible flow, Uncertainty analysis

Supervisor for more than 60 Masters thesis ("Examensarbeten")

Extended research visits

- *Oct.-Dec. 1979:* Univ. Florida, Dept. Mech. Eng., Gainesville. Invited by prof. R. Lindgren
- *Nov. 1984- Feb. 1985:* MIT, Dept. Aero. & Astro., Cambridge. Invited by Prof. J. Haritonidis.
- *June-Aug. 1985:* Max-Planck-Institut für Strömungsforschung, Göttingen. Invited by Dr. H. Eckelmann.
- *July-August 1987 and June-July 1988:* NASA Ames - Stanford University, Summer Program of the Center for Turbulence Research. Invited by Prof. P. Moin.
- *Two weeks in May 1989:* Institute for Computer Applications in Science and Engineering, Workshop on the transition to turbulence NASA Langley Research Center, Hampton, VA.
- *Two weeks each in 1991, 92 and 97:* Dept. Fluid Mechanics EPFL/Lausanne. Invited by Prof. I. Rhyning and Prof. P. Monkewitz
- *Four weeks each in 1997 and 2004:* Inst. Fluid Mech., Tohoku Univ., Sendai. Invited by prof. Y. Kohama.
- *Two weeks in 2008:* Tokyo University of Science. Invited by prof. H. Kawamura.
- *Two days per week 2014-15 and 2017-18:* SSF Strategic mobility grant to carry out research at Scania CV, Södertälje (first period: engine gas exchange, second period: external aerodynamics).
- *Four weeks in 2018:* JSPS Invitational Fellowship, Shinshu University, Nagano, Japan. Invited by prof. M. Matsubara.

International and national committee membership and commissions (selected)

- Referee for major scientific journals in the area of fluid mechanics, such as J. Fluid Mech., Physics of Fluids, European J. of Mech. Exp. Fluids etc.
- Organizer of the Third European Turbulence Conference 1990 (in Stockholm) with approximately 200 attendees (with A.V. Johansson).
- Organizer of ERCOFTAC/IUTAM Summerschool of turbulence and transition modelling, June 1995, with approximately 110 attendees (with M. Hallböck, D. Henningson, A.V. Johansson).
- Organizer of the Second ERCOFTAC Summerschool of turbulence and transition modelling, June 1998, with approximately 50 attendees (with A. Hanifi, D. Henningson, A.V. Johansson).
- Opponent/external examiner for 21 doctoral thesis (1*Australia, 1*Denmark, 1*Italy, 6*The Netherlands, 1*Spain, 1*Switzerland, 3*Trondheim, Norway, 2*UK, 4*LTH, 1*LTU)
- Member of "Svenska Nationalkommittén för Mekanik" 1992-2000, chairman 1997-2000.
- Member of TFR (Swedish Research Council of Engineering Sciences) 1999-2000
- Board member of Human Protein Research 2003-2012

- Chairman 6th EUROMECH Fluid Mechanics Conference, EFMC6, Stockholm, June 26-30, 2006, with approximately 430 attendees.
- Founding member Linné Flow Centre 2006
- Board member of KTH University Board, 2007–2009
- Organizer of NORDITA Programme on Turbulent boundary layers, April 2010 (together with Philipp Schlatter and Axel Brandenburg)
- Member American Physical Society Fluid Dynamics Prize Selection Committee, 2012–2013.
- Member of Editorial board for Royal Society Philosophical Transactions A, 2014–2016
- Member of the Advisory board National Wind Tunnel Facility, EPSRC, UK, 2014–

Advisors for Graduate Students

	Lic. thesis	Doctoral thesis
Barbro Klingmann*	Dec. 1989	Sept. 1991
John Matsson	April 1991	Dec. 1993
Nils Tillmark	-	May 1995
Ardeshir Hanifi (co-advisor: A. Dahlkild)	1993	
Ardeshir Hanifi* (co-advisor: D. Henningson)	-	Dec. 1995
Johan Westin	-	May 1997
Renaud Lavalley (together with G. Amberg)	Jan. 1998	-
Mikael Sima (co-advisor: A. Burden)	Feb. 1998	-
Per Elofsson	-	May 1999
Daniel Söderberg*	Jan. 1997	Sept. 1999
Carl Häggmark	-	March 2000
Fredrik Lundell *	June 2000	March 2003
Jens Fransson*	Sept. 2001	Dec. 2003
Timmy Sigfrids (co-advisor: N Tillmark)	June 2003	-
Richard Holm (co-advisor: D. Söderberg)	June 2002	-
Davide Medici	March 2004	Feb. 2006
Luca Facciolo (co-advisor: N Tillmark)	Nov. 2003	March 2006
Ola Löfdberg (co-advisor: J Fransson/with J Fransson)	Oct. 2006	Jan. 2009/Sept 2018
Ramis Örlü* (co-advisor: N Tillmark)	Nov. 2006	June 2009
Thomas Kurian (co-advisor: J Fransson)	-	June 2010
Fredrik Laurantzon (co-advisor: R Örlü, N Tillmark)	Dec. 2010	June 2012
Athanasia Kalpakli (co-advisor: R Örlü, N Tillmark)	April 2012	June 2014
Markus Pastuhoff (co-advisor: N Tillmark)	-	Sept 2014
Shintaro Imayama (co-advisor: R Lingwood)	June 2012	Jan. 2015
Ellinor Appelquist (with P Schlatter, R Lingwood)	Sept 2014	Feb. 2017
Julie Vernet (co-advisors: R Örlü, G Efraimsson)	Dec. 2014	March 2017
Ann Hyvärinen (co-advisor: A Segalini)	Feb. 2018	-
Marcus Winroth (co-advisor: R Örlü)	March 2017	May 2019

Graduates marked with * have obtained the doctor degree.

Postdoctoral and research visitors to the Fluid physics laboratory (>1 month) 2000-

Researcher	period
Michael Katasonov	991001 - 000701
Rebecca Lingwood	000821 - 000931
Penny Parkin	010115 - 010315
Shuya Yoshioka	020402 - 040325
Carlo Cossu	one month during 2003-2004
Philippe Brunet	031001 - 041001
Boris Jacob	two months during 2004-2005
Yvan Maciel	060601 - 060731
Kazuaki Hiwatashi	two months during 2005-2006
Takahiro Tsukahara	070419 - 080309
Antonio Segalini	100401 - 130930
Alexandre Suryadi	110901 - 130930
Chris Ford	140915 - 160915
Takuya Kawata	140814 - 170320
– ” –	171125 - 190323
Yu Nishio	160601 - 170315
Kentaro Kato	170415 - 210831
Patricia Sujar	190506 -

Awards and Distinctions

- Recipient (together with A.V. Johansson) of the 1987 Energy Research Prize from ASEA's Gunnar Engström Foundation for research on turbulent mixing in density interfaces and for experimental turbulence research.
- Teacher of the year award by students in the School of Vehicle Engineering, KTH, 1995.
- Recipient of the Borelius-medal for service to Engineering physics, KTH 2004
- Recipient (together with M. Matsubara) of award from the Japan Society of Fluid Mechanics 2005 for the paper "Disturbance growth in boundary layer subjected to free-stream turbulence".
- Elected Fellow of the American Physical Society, Division of Fluid Dynamics 2012 with the citation: "For the development of innovative, creative and rigorous experimental methods leading to seminal contributions to our understanding of instabilities, transitional and turbulent flows".
- Elected member of the Royal Swedish Academy of Engineering Sciences (IVA) in 2014.

Publications

- 140 papers (published/accepted) in journals with referee system (h-index 38, Web of Science; h-index 48 Google scholar, 2021-08-18)
- 100 papers in refereed conference proceedings
- 4 book chapters

Publications by P. Henrik Alfredsson

Published papers in archival journals with referee procedure

1. Shands, J., Alfredsson, P.H. & Lindgren, E.R. 1980, Annular pipe flow subject to axial motion of the inner boundary. *Phys. Fluids* **23**, 2144–2145.
2. Alfredsson, P.H. & Lagerstedt, T. 1981 The behavior of the density oscillator. *Phys. Fluids* **24**, 10–14.
3. Johansson, A.V. & Alfredsson, P.H. 1982 On the structure of turbulent channel flow. *J. Fluid Mech.* **122**, 295–314.
4. Alfredsson, P.H., Dahlberg, J.Å. & Vermeulen, P.E.J. 1982 A comparison between predicted and measured data from wind turbine wakes. *Wind Engineering* **6**, 149–155.
5. Johansson, A.V. & Alfredsson, P.H. 1983 Effects of imperfect spatial resolution on measurements of wall bounded turbulent shear flows. *J. Fluid Mech.* **137**, 409–421.
6. Alfredsson, P.H. & Johansson, A.V. 1984 On the detection of turbulence-generating events. *J. Fluid Mech.* **139**, 325–345.
7. Alfredsson, P.H. & Johansson, A.V. 1984 Time scales in turbulent channel flow. *Phys. Fluids* **27**, 1974–1981.
8. Sahlin, A., Alfredsson, P.H. & Johansson, A.V. 1986 Direct drag measurements for a flat plate with passive boundary layer manipulators. *Phys. Fluids*, **29**, 696–700.
9. Alavyoon, F., Henningson, D.S. & Alfredsson, P.H. 1986 Turbulent spots in plane Poiseuille flow-flow visualization. *Phys. Fluids* **29**, 1328–1331.
10. Henningson, D.S. & Alfredsson, P.H. 1987 The wave structure of turbulent spots in plane Poiseuille flow. *J. Fluid Mech.* **178**, 405.
11. Alfredsson, P.H., Johansson, A.V., Haritonidis, J.H. & Eckelmann, H. 1988 On the fluctuating wall shear stress and velocity field in the viscous sublayer. *Phys. Fluids* **31**, 1026–1033.
12. Sahlin, A., Johansson, A.V. & Alfredsson, P.H. 1988 On the possibility of drag reduction by outer layer manipulators in turbulent boundary layers. *Phys. Fluids*. **31**, 2814–2820.
13. Alfredsson, P.H. & Persson, H. 1989 Instabilities in channel flow with system rotation. *J. Fluid Mech.* **202**, 543–557.
14. Matsson, O.J.E. & Alfredsson, P.H. 1990 Curvature and rotation induced instabilities in channel flow. *J. Fluid Mech.* **210**, 537–563.
15. Klingmann, B. & Alfredsson, P.H. 1990 Turbulent spots in plane Poiseuille flow - measurements of the velocity field. *Phys. Fluids. A* **2**, 2183–2195.
16. Johansson, A.V., Alfredsson, P.H. & Kim, J. 1991 Evolution and dynamics of shear-layer structures in near-wall turbulence. *J. Fluid Mech.* **224**, 579–599.
17. Bottaro, A., Matsson, O.J.E. & Alfredsson, P.H. 1991 Numerical and experimental results for developing curved channel flow. *Phys. Fluids A* **3**, 1473–1476.

18. Tillmark, N. & Alfredsson, P.H. 1992 Experiments on transition in plane Couette flow. *J. Fluid Mech.* **235**, 89–102.
19. Matsson, O.J.E. & Alfredsson, P.H. 1992 Experiments on instabilities in curved channel flow. *Phys. Fluids A* **4**, 1666–1676.
20. Matsson, O.J.E. & Alfredsson, P.H. 1993 Secondary instability and breakdown to turbulence in curved channel flow. Advances in Turbulence IV. *Appl. Sci. Res.* **51**, 9–14.
21. Tillmark, N. & Alfredsson, P.H. 1993 Turbulence in plane Couette flow. Advances in Turbulence IV. *Appl. Sci. Res.* **51**, 237–241.
22. Klingmann, B.G.B., Boiko, A.V., Westin, K.J.A., Kozlov, V.V. & Alfredsson, P.H. 1993 Experiments on the stability of Tollmien-Schlichting waves. *Eur. J. Mech. B/Fluids* **12**, 493–514.
23. Henningson, D.S., Johansson, A.V. & Alfredsson, P.H. 1994 Turbulent spots in channel flows. (Invited review article). *J. Eng. Math.* **28**, 21–42.
24. Bergström, L. & Alfredsson, P.H. 1994 Symmetry properties of developing three-dimensional laminar disturbances in plane Poiseuille flow. *Phys. Fluids A* **6**, 1618–1620.
25. Matsson, O.J.E. & Alfredsson, P.H. 1994 The effect of spanwise system rotation on Dean vortices. *J. Fluid Mech.* **274**, 243–265.
26. Westin, K.J.A., Boiko, A.V., Klingmann, B.G.B., Kozlov, V.V. & Alfredsson, P.H. 1994 Experiments in a boundary layer subjected to free stream turbulence. Part I: Boundary layer structure and receptivity. *J. Fluid Mech.* **281**, 193–218.
27. Boiko, A.V., Westin, K.J.A., Klingmann, B.G.B., Kozlov, V.V. & Alfredsson, P.H. 1994 Experiments in a boundary layer subjected to free stream turbulence. Part II: The role of TS-waves in the transition process. *J. Fluid Mech.* **281**, 219–245.
28. Tillmark, N. & Alfredsson, P.H. 1994 On Rayleigh instability in decaying plane Couette flow. *Appl. Sci. Res.* **53**, 187–196.
29. Bech, K.H., Tillmark, N., Alfredsson, P.H. & Andersson, H.I. 1995 An investigation of turbulent plane Couette flow at low Reynolds numbers. *J. Fluid Mech.* **286**, 291–325.
30. Matsubara, M. & Alfredsson, P. H. 1996 Experimental study of heat and momentum transfer in rotating channel flow. *Phys. Fluids* **8**, 2964–2973.
31. Bakchinov, A.A., Westin, K.J.A., Kozlov, V.V. & Alfredsson, P.H. 1998 Experiments on localized disturbances in a flat plate boundary layer. Part 2 Interaction between localized disturbances and TS-waves. *Eur. J. Mech. B/Fluids* **17**, 847–873.
32. Elofsson, P.A. & Alfredsson, P.H. 1998 An experimental study of oblique transition in plane Poiseuille flow. *J. Fluid Mech* **358**, 177–202.
33. Matsubara, M. & Alfredsson, P.H. 1998 Secondary instability in rotating channel flow. *J. Fluid Mech.* **368**, 27–50.
34. Söderberg, L.D. & Alfredsson, P.H. 1998 Experimental and theoretical stability investigations of plane liquid jets. *Eur. J. Mech. B/Fluids* **17**, 689–737.

35. Westin, K.J.A., Bakchinov, A.A., Kozlov, V.V. & Alfredsson, P.H. 1998 Experiments on localized disturbances in a flat plate boundary layer. Part 1. The receptivity and evolution of a localized free stream disturbance. *Eur. J. Mech. B/Fluids* **17**, 823–846.
36. Elofsson, P.A., Kawakami, M. & Alfredsson, P.H. 1999 Experiments on the stability of streamwise streaks in plane Poiseuille flow. *Phys. Fluids* **11**, 915–930.
37. Elofsson, P.A. & Alfredsson, P.H. 2000 An experimental study of oblique transition in a Blasius boundary layer flow. *Eur. J. Mech. B/Fluids* **19**, 615–636.
38. Häggmark, C.P., Bakchinov, A.A. & Alfredsson, P.H. 2000 Measurements with a flow direction boundary-layer probe in a two-dimensional laminar separation bubble. *Exp. Fluids* **28**, 236–242.
39. Häggmark, C.P., Bakchinov, A.A. & Alfredsson, P.H. 2000 Experiments on a two-dimensional laminar separation bubble. *Phil. Trans. R. Soc. Lond. A* **358**, 3193–3205.
40. Söderberg, L.D. & Alfredsson, P.H. 2000 Experiments concerning the origin of streaky structures inside a plane water jet. *J. Pulp and Paper Science* **26**, 395–400.
41. Talamelli, A., Westin, K.J.A. & Alfredsson, P.H. 2000 An experimental investigation of the response of hot-wire X-probes in shear flows. *Exp. Fluids* **28**, 425–435.
42. Lavalley, R., Amberg, G. & Alfredsson, H. 2001 Experimental and numerical investigation of nonlinear thermocapillary oscillations in an annular geometry. *Eur. J. Mech. B/Fluids* **20**, 771–797.
43. Matsubara, M. & Alfredsson, P.H. 2001 Disturbance growth in boundary layers subjected to free stream turbulence. *J. Fluid Mech.* **430**, 149–168.
44. Shiomi, J., Amberg, G. & Alfredsson, P.H. 2001 Active control of oscillatory thermocapillary convection. *Phys. Rev. E* **64**, 031205-1-7.
45. Talamelli, A., Fornaciari, N., Westin, J. & Alfredsson, H. 2002 Experimental Investigation of streaky structures in a relaminarizing boundary layers. *J. Turbulence* **3**, 1–13.
46. Fransson, J.H.M. & Alfredsson, P.H. 2003 On the hydrodynamic stability of channel flow with cross flow. *Phys. Fluids* **15**, 436–441.
47. Fransson, J.H.M. & Alfredsson, P.H. 2003 On the disturbance growth in an asymptotic suction boundary layer. *J. Fluid Mech.* **482**, 51–90.
48. Inasawa, A., Lundell, F., Matsubara, M., Kohama, Y. & Alfredsson, P. H. 2003 Velocity statistics and flow structures observed in bypass transition using stereo PTV. *Exp. Fluids* **34**, 242–252.
49. Lundell, F. & Alfredsson, P. H. 2003 Experiments on control of streamwise streaks. *Eur. J. Mech. B/Fluids* **22**, 279–290.
50. Lundell, F. & Alfredsson, P. H. 2004 Streamwise scaling of streaks in laminar boundary layers subjected to free-stream turbulence. *Phys. Fluids* **16**, 1814–1817.
51. Facciolo, L. & Alfredsson, P.H. 2004 The counter-rotating core of a swirling turbulent jet issued from a rotating pipe flow. *Phys. Fluids* **16**, L71-73.
52. Fransson, J.H.M., Konieczny, P. & Alfredsson, P.H. 2004 Flow around a porous cylinder subject to continuous suction or blowing. *J. Fluid Struct.* **19**, 1031–1048.

53. Yoshioka, S., Fransson, J. H. M. & Alfredsson, P.H. 2004 Free stream turbulence induced disturbances in boundary layers with wall suction. *Phys. Fluids*, **16**, 3530–3539.
54. Fransson, J.H.M., Matsubara, M. & Alfredsson, P.H. 2005 Transition induced by free stream turbulence. *J. Fluid Mech.* **527**, 1–25.
55. Brunet, P., Amberg, G. & Alfredsson, P.H. 2005 Control of thermocapillary instabilities far from threshold. *Phys. Fluids* **17**, 104109.
56. Medici, D. & Alfredsson, P.H. 2006 Measurements on a wind turbine wake: 3D effects and bluff-body vortex shedding. *Wind Energy* **9**, 219–236.
57. Facciolo, L., Tillmark, N., Talamelli, A. & Alfredsson, P.H. 2007 A study of swirling turbulent pipe and jet flows. *Phys. Fluids* **19**, 035105.
58. Hiwatashi, K., Alfredsson, P.H., Tillmark, N. & Nagata, M. 2007 Experimental observations of instabilities in rotating plane Couette flow. *Phys. Fluids* **19**, 048103.
59. Tsuji, Y., Fransson, J.H.M., Alfredsson, P.H. & Johansson, A.V. 2007 Pressure statistics and their scaling in high-Reynolds-number turbulent boundary layers. *J. Fluid Mech.* **585**, 1 – 40.
60. Örlü, R. & Alfredsson, P.H. 2008 An experimental study of the near-field mixing characteristics of a swirling jet. *Flow, Turbulence and Combustion* **80**, 323–350.
61. Jacob, B., Casciola, C.M., Talamelli, A. & Alfredsson, P.H. 2008 Scaling of mixed structure function in turbulent boundary layers. *Phys. Fluids* **20**, 045101.
62. Medici, D. & Alfredsson, P.H. 2008 Measurements behind model wind turbines: further evidence of wake meandering. *Wind Energy* **11**, 211–217.
63. Maciel, Y., Facciolo, L., Duwig, C., Fuchs, L. & Alfredsson, P.H. 2008 Near field dynamics of a turbulent round jet with moderate swirl. *Int. J. Heat and Fluid Flow* **29**, 675–686.
64. Lögdberg, O., Angele, K. & Alfredsson, P.H. 2008 On the scaling of turbulent separating boundary layers. *Phys. Fluids* **20**, 075104.
65. Örlü, R. & Alfredsson, P.H. 2008 Passive scalar flux measurements in the near-field region of a swirling jet. *Heat transfer research* **39**, 597–607.
66. Lögdberg, O., Fransson, J.H.M. & Alfredsson, P.H. 2009 Streamwise evolution of longitudinal vortices in a turbulent boundary layer. *J. Fluid Mech.* **623**, 27 – 58.
67. Talamelli, A., Persiani, F., Fransson, J.H.M., Alfredsson, P.H., Johansson, A.V., Nagib, H.M., Rüedi, J.-D., Sreenivasan, K.R. & Monkewitz, P.A. 2009 CICLoPE - a response to the need for high Reynolds number experiments, *Fluid Dynamics Research* **41**, 021407.
68. Schlatter, P., Örlü, R., Li, Q., Brethouwer, G. Fransson, J.H.M., Johansson, A.V., Alfredsson, P.H. & Henningson, D.S. 2009 Turbulent boundary layers up to $Re_\theta=2500$ studied through simulation and experiment, *Phys. Fluids* **21**, 051702.
69. Lögdberg, O., Angele, K. & Alfredsson, P.H. 2010 On the robustness of separation control by streamwise vortices, *Eur. J. Mech. B/Fluids* **29**, 9–17.
70. Örlü, R. & Alfredsson, P.H. 2010 On spatial resolution issues related to time-averaged quantities using hot-wire anemometry. *Exp. Fluids* **49**, 101–110.

71. Tsukahara, T., Tillmark, N. & Alfredsson, P.H. 2010 Flow regimes in a plane Couette flow with system rotation. *J. Fluid Mech.* **648**, 5–33.
72. Örlü, R., Fransson, J.H.M. & Alfredsson, P.H. 2010 On near wall measurements of wall bounded flows - The necessity of an accurate determination of the wall position. *Prog. Aerospace Sciences* **46**, 353–387.
73. Alfredsson, P.H. & Örlü, R. 2010 The diagnostic plot - a litmus test for wall bounded turbulence data. *Eur. J. Mechanics B/Fluids* **29**, 403–406.
74. Laurantzon, F., Örlü, R., Segalini, A. & Alfredsson, P.H. 2010 Time-resolved measurements with a vortex flowmeter in a pulsating turbulent flow using wavelet analysis. *Meas. Sci. Technol.* **21**, 123001.
75. Örlü, R. & Alfredsson, P.H. 2010 The life of a vortex in an axisymmetric jet. *J. Vis.* **14**, 5-6.
76. Lundell, F., Söderberg, L.D. & Alfredsson, P.H. 2011 Fluid mechanics of papermaking. *Annu. Rev. Fluid Mechanics* **43**, 195–217.
77. Medici, D., Ivanell, S., Dahlberg, J.-Å. & Alfredsson, P.H. 2011 The upstream flow of a wind turbine: blockage effect. *Wind Energy* **14**, 691–697.
78. Alfredsson, P.H., Örlü, R. & Schlatter, P. 2011 The viscous sublayer revisited - exploiting the self-similarity to determine the wall position and friction velocity. *Exp. Fluids*, **51**, 271–280.
79. Kurian, T., Fransson, J.H.M. & Alfredsson, P.H. 2011 Boundary layer receptivity to free-stream turbulence and surface roughness over a swept flat plate. *Phys. Fluids* **23**, 034107.
80. Alfredsson, P.H., Segalini, A. & Örlü, R. 2011 A new scaling for the streamwise turbulence intensity in wall-bounded turbulent flows and what it tells us about the outer peak. *Phys. Fluids* **23**, 041702.
81. Segalini, A., Örlü, R., Schlatter, P., Alfredsson, P.H., Rüedi, J.-D. & Talamelli, A. 2011 A method to estimate turbulence intensity and transverse Taylor microscale in turbulent flows from spatially averaged hot-wire data. *Exp. Fluids* **51**, 693–700.
82. Kalpakli, A., Örlü, R. & Alfredsson, P.H. 2012 Dean vortices in turbulent flows: rocking or rolling. *J. Vis.* **15**, 37–38.
83. Imayama, S.I., Alfredsson, P.H. & Lingwood, R.J. 2012 A new way to describe the transition characteristics of a rotating-disk boundary-layer flow. *Phys. Fluids* **24**, 031701.
84. Laurantzon, F., Tillmark, N., Örlü, R. & P.H. Alfredsson 2012 A flow facility for the characterization of pulsatile flows. *Flow Meas. Instrum.* **26**, 10–17.
85. Segalini, A. & Alfredsson, P.H. 2012 Techniques for eduction of coherent structures from flow measurements in the atmospheric boundary layer. *Boundary-Layer Meteorology* **143**, 433–450.
86. Alfredsson, P. H., Örlü, R. & Segalini, A. 2012 A new formulation for the streamwise turbulence intensity distribution in wall-bounded turbulent flows. *Eur. J. Mechanics B/Fluids* **36**, 167–175.
87. Tsuji, Y., Imayama, S., Schlatter, P., Alfredsson, P.H., Johansson, A.V., Marusic, I., Hutchins, N. & Monty, J. 2012 Pressure fluctuation in high-Reynolds number turbulent boundary layer; Results from experiments and DNS. *J. Turbulence* **13**, No. 50, 1–19.

88. Bailey, S., Hultmark, M., Monty, J., Alfredsson, P.H., Chong, M., Duncan, R., Fransson, J. H. M., Hutchins, N., Marusic, I., McKeon, B. J., Nagib, H.M., Örlü, R., Segalini, A. S., Smits, A. J. & Vinuesa, R. 2013 Obtaining accurate mean velocity measurements in high Reynolds number turbulent boundary layers using Pitot probes. *J. Fluid Mech.* **715**, 642–670.
89. Imayama, S.I., Alfredsson, P.H. & Lingwood, R.J. 2013 An experimental study of edge effects on rotating-disk transition. *J. Fluid Mech.* **716**, 638–657.
90. Örlü, R. & Alfredsson, P.H. 2013 Comment on the scaling of the near-wall streamwise variance peak in turbulent pipe flows. *Exp. Fluids* **54**, 1431, DOI 10.1007/s00348-012-1431-0.
91. Segalini, A., Örlü, R. & Alfredsson, P.H. 2013 Uncertainty analysis of the von Kármán constant. *Exp. Fluids* **54**, 1460 DOI 10.1007/s00348-013-1460-3.
92. Alfredsson, P.H. Imayama, S.I., Lingwood, R.J., Örlü, R. & Segalini, A., 2013 Turbulent boundary layers over flat plates and rotating disks—the legacy of von Kármán: A Stockholm perspective. *Eur. J. Mechanics B/Fluids* **40**, 17–29.
93. Segalini, A., Fransson, J.H.M. & Alfredsson, P.H. 2013 Scaling laws in canopy flows: a wind-tunnel analysis. *Boundary-Layer Meteorol.* **148**, 269–283.
94. Talamelli, A., Segalini, A., Örlü, R., Schlatter, P. & Alfredsson, P.H. 2013 Correcting hot-wire spatial resolution effects in third- and fourth-order velocity moments in wall-bounded turbulence. *Exp. Fluids* **54**, 1496.
95. Segalini, A. & Alfredsson, P.H. 2013 A simplified vortex model of propeller and wind-turbine wakes. *J. Fluid Mech.* **725**, 91–116.
96. Castro, I.P., Segalini, A. & Alfredsson, P.H. 2013 Outer layer turbulence intensities in smooth- and rough-wall boundary layers. *J. Fluid Mech.* **727**, 119–131.
97. Pastuhoff, M., Yorita, D., Asai, K. & Alfredsson, P.H. 2013 Enhancing signal-to-noise ratio of pressure sensitive paint data by singular value decomposition. *Meas. Sci. Technol.* **24**, 075301.
98. Suryadi, A., Tillmark, N. & Alfredsson, P.H. 2013 Velocity measurements of streamwise roll cells in rotating plane Couette flow. *Exp. Fluids* **54**, 1617.
99. Kalpakli, A., Örlü, R. & Alfredsson, P.H. 2013 Vortical patterns in turbulent flow downstream a 90 degree curved pipe at high Womersley numbers. *Int. J. Heat Fluid Flow* **44**, 692–699.
100. Suryadi, A., Segalini, A. & Alfredsson, P.H. 2014 Zero absolute vorticity: Insight from experiments in rotating laminar plane Couette flow. *Phys. Rev. E* **89**, 0330030.
101. Imayama, S.I., Alfredsson, P.H. & Lingwood, R.J. 2014 On the laminar-turbulent transition of the rotating-disk flow - the role of absolute instability. *J. Fluid Mech.* **745**, 132–163.
102. Imayama, S.I., Lingwood, R.J. & Alfredsson, P.H. 2014 The turbulent rotating-disk boundary layer. *Eur. J. Mech. B/Fluids* **48**, 245–253.
103. Fransson, J.H.M., Johansson, A.V. & Alfredsson, P.H. 2014 Minimum-Turbulence-Level wind tunnel at KTH. *Nagare* **33**, 253–258 (in Japanese).
104. Appelquist, E., Schlatter, P., Alfredsson, P.H. & Lingwood, R. 2015 Global linear instability of the rotating-disk flow investigated through simulations. *J. Fluid Mech.* **765**, 612–631.

105. Kalpakli Vester, A., Örlü, R. & Alfredsson, P.H. 2015 Pulsatile turbulent flow in straight and curved pipes – Interpretation and decomposition of hot-wire signals. *Flow, Turbulence Combust.* **94**, 305–321.
106. Lingwood, R.J. & Alfredsson, P.H. 2015 Instabilities of the von Kármán boundary layer. *Appl. Mech. Rev.* **67** (3), 030803.
107. Kalpakli Vester, A., Örlü, R. & Alfredsson, P.H. 2015 POD analysis of the turbulent flow downstream a mild and sharp bend. *Exp. Fluids* **56**, 57.
108. Vernet, J., Örlü, R. & Alfredsson, P.H. 2015 Separation control by means of plasma actuation on a half cylinder approached by a turbulent boundary layer *J. Wind. Eng. Ind. Aerod.* **145**, 318–326.
109. Appelquist, E., Imayama, S., Alfredsson, P.H., Schlatter, P. & Lingwood, R. 2016 Linear disturbances in the rotating-disk flow: A comparison between results from simulations, experiments and theory. *Eur. J. Mech. B/Fluids* **55**, 170–181.
110. Imayama, S.I., Alfredsson, P.H. & Lingwood, R.J. 2016 Experimental study of rotating-disk boundary-layer flow with surface roughness. *J. Fluid. Mech.* **786**, 5–28.
111. Örlü, R. & Alfredsson, P.H. 2016 Binormal cooling errors in single hot-wire measurements. *J. Theor. Appl. Mech.* **54**, 305–310.
112. Kawata, T. & Alfredsson, P.H. 2016 Experiments in rotating plane Couette flow – momentum transport by coherent roll-cell structure and zero-absolute-vorticity state. *J. Fluid. Mech.* **791**, 191–213.
113. Pastuhoff, M., Tillmark, N. & Alfredsson P.H. 2016 Measuring surface pressure on rotating compressor blades using pressure sensitive paint. *Sensors*, **16**, 344.
114. Örlü, R., Segalini, A., Klewicki, J. & Alfredsson, P.H. 2016 High-order generalisation of the diagnostic scaling for turbulent boundary layers, *J. Turbulence*, **17**,(7) 664–677.
115. Kawata, T. & Alfredsson, P.H. 2016 Turbulent rotating plane Couette flow – Reynolds and rotation number dependency of flow structure and momentum transport. *Phys. Rev. Fluids* **1**, 034402.
116. Ford, C., Winroth, M. & Alfredsson, P.H. 2016 Development of a pressure based vortex-shedding meter: measuring unsteady mass-flow in variable density gases. *Meas. Sci. Tech.* **27**, 085901.
117. Appelquist, E., Schlatter, P., Alfredsson, P.H. & Lingwood, R. 2016 On the global nonlinear instability of the rotating-disk flow over a finite domain. *J. Fluid. Mech.* **803**, 332–355.
118. Kalpakli Vester, A., Örlü, R. & Alfredsson, P.H. 2016 Turbulent flows in curved pipes: recent advances in experiments, simulations and analysis. *Appl. Mech. Rev.* **050802**, 1–25.
119. Rabault, J., Vernet, J.A., Lindgren, B. & Alfredsson P.H. 2016 A study using PIV of the intake flow in a diesel engine cylinder. *Int. J. Heat Fluid Flows* **62**, 56–67.
120. Örlü, R., Fiorini, T., Segalini, A., Bellani, G., Talamelli, A. & Alfredsson, P.H. 2016 Reynolds stress scaling in pipe flow turbulence - first results from CICLoPE. *Phil. Trans. R. Soc. A* **375**, 20160187.

121. Alfredsson, P.H. & Segalini, A. 2017 Wind farms in complex terrain: an introduction. *Phil. Trans. R. Soc. A* **375**, 20160096.
122. Ikeya, Y., Örlü, R., Fukagata, K. & Alfredsson, P.H. 2017 Towards a theoretical model of heat transfer for hot-wire anemometry close to solid walls. *Int. J. Heat Fluid Flows* **68**, 248–256.
123. Vernet, J.A., Örlü, R. & Alfredsson, P.H. 2018 Flow separation control behind a cylindrical bump using DBD-VGs plasma actuators. *J. Fluid Mech.* **835**, 852–879.
124. Appelquist, E., Schlatter, P., Alfredsson, P.H. & Lingwood, R.J. 2018 Transition to turbulence in the rotating-disk boundary-layer flow with stationary vortices. *J. Fluid. Mech.* **836**, 43–71.
125. Appelquist, E., Schlatter, P., Alfredsson, P.H. & Lingwood, R.J. 2018 Turbulence in the rotating-disk boundary layer investigated through direct numerical simulations. *Eur. J. Mech. B/Fluids* **70**, 6–18.
126. Winroth, P.M., Ford, C.L. & Alfredsson, P.H. 2018 On discharge from poppet valves: Effects of pressure and system dynamics. *Exp. Fluids*, **59**, 24
127. Ford, C.L., Winroth, P.M. & Alfredsson, P.H. 2018 Vortex-meter design: the influence of shedding-body geometry on shedding characteristics. *Flow Meas. Instrum.* **59**, 88–102.
128. Alfredsson, P.H. & Örlü, R. 2018 Large-Eddy BreakUp Devices – a 40 Years Perspective from a Stockholm Horizon. *Flow, Turbulence Combust.* **100**, 877–888.
129. Vernet, J.A., Örlü, R., Söderblom, D., Elofsson, P. & Alfredsson, P.H. 2018 Plasma streamwise vortex generators for flow separation control on trucks. *Flow, Turbulence Combust.* **100**, 1101–1109.
130. Kalpakli Vester, A., Nishio, Y. & Alfredsson, P.H. 2018 Unraveling tumble and swirl in a unique water-analogue engine model. *J. Viz.* **21**, 557–568
131. Kawata, T. & Alfredsson, P.H. 2018 Inverse interscale transport of the Reynolds shear stress in plane Couette turbulence. *Phys. Rev. Lett.* **120**, 244501.
132. Vernet, J.A., Örlü, R. & Alfredsson, P.H. 2018 Flow separation control by Dielectric Barrier Discharge plasma actuation via pulsed momentum injection. *AIP Advances* **8**, 075229.
133. Kalpakli Vester, A., Nishio, Y. & Alfredsson, P.H. 2019 Investigating swirl and tumble using two prototype inlet port designs by means of multi-planar PIV. *Int. J. Heat Fluid Flow* **75**, 61–76.
134. Winroth, P.M. & Alfredsson, P.H. 2019 On shock structures in dynamic exhaust valve flows. *Phys. Fluids* **31**, 026107.
135. Kato, K., Kawata, T., Alfredsson, P.H. & Lingwood, R.J. 2019 Investigation of the structures in the unstable rotating-cone boundary layer. *Phys. Rev. Fluids* **4**, 053903.
136. Kato, K., Alfredsson, P.H. & Lingwood, R.J. 2019 On boundary-layer transition over a rotating broad cone. *Phys. Rev. Fluids* **4**, 071902(R).
137. Kawata, T. & Alfredsson, P.H. 2019 Scale interactions in turbulent rotating planar Couette flow: insight through the Reynolds stress transport. *J. Fluid. Mech.* **879**, 255–295.
138. Matsubara, M., Alfredsson, P.H. & Segalini, A. 2020 Linear modes in a planar turbulent jet. *J. Fluid. Mech.* **888**, A26.

139. Yimprasert, S., Kvik, M., Alfredsson, P.H. & Matsubara, M. 2021 Flow visualization and skin friction determination in transitional channel flow. *Exp. Fluids*, **62**:31.
140. Kato, K., Segalini, A., Alfredsson, P.H. & Lingwood, R.J. 2021 Instability and transition in the boundary layer driven by a rotating slender cone. *J. Fluid. Mech.* **915**, R4.

Refereed conference contributions

141. Alfredsson, P.H., Dahlberg, J.Å. & Bark, F.H. 1980 Some properties of the wake behind horizontal axis wind turbines. *Proc. Third Int. Symp. Wind Energy Systems*, Copenhagen, pp. 469–484.
142. Johansson, A.V., Alfredsson, P.H. & Bark, F.H. 1983 On possible drag reduction methods for ships. Nordiskt Skeppstekniskt möte (NSTM), Mariehamn.
143. Lindberg, P.Å., Fahlgren, E.M., Alfredsson, P.H. & Johansson, A.V. 1984 An experimental study of the structure and spreading of turbulent spots. *Proc. Second IUTAM Symp. Laminar Turbulent Transition*, Novosibirsk, Springer Verlag, pp. 617–624.
144. Johansson, A.V. & Alfredsson, P.H. 1986 Recent Developments of drag reduction methods for ships. *Proc. Second Int. Symp. Ship Viscous Resistance*, Gothenbourg, 24:1–24:13.
145. Johansson, A.V., Alfredsson, P.H. & Eckelmann, H. 1987 On the evolution of shear layer structures in near-wall turbulence. **Advances in Turbulence 1**, *Proc. 1st Eur. Turbulence Conf.*, Lyon 1986, (ed. G. Comte-Bellot & J. Mathieu), p 230. Springer.
146. Johansson, A.V., Alfredsson, P.H. & Kim, J. 1988 Velocity and pressure fields associated with near-wall turbulence structures. *Proc. Zoran Zaric Memorial Int. Seminar on Near-Wall Turbulence*, Dubrovnik.
147. Alfredsson, P.H. & Johansson, A.V. 1988 The art of detection of turbulence structures. *Proc. Zoran Zaric Memorial Int. Seminar on Near-Wall Turbulence*, Dubrovnik.
148. Alfredsson, P.H. & Johansson, A.V. 1988 Turbulence experiments-instrumentation and processing of data. **Advances in Turbulence 2**, *Proc. 2nd Eur. Turbulence Conf.*, Berlin Sept 1988, (ed. H.-H. Fernholz & H.E. Fiedler), p 230. Springer.
149. Klingmann, B., Alfredsson, P.H. & Henningson, D.S. 1988 An experimental study of the velocity field of turbulent spots in plane Poiseuille flow. **Advances in Turbulence 2**, *Proc. 2nd Eur. Turbulence Conf.*, Berlin Sept 1988, (ed. H.-H. Fernholz & H.E. Fiedler), p 9. Springer.
150. Gebart, R., Lindblad, I.A.A., Alfredsson, P.H. & Johansson, A.V. 1990 How to suppress transport across a density interface. **Stratified flows**, *Proc. Third Int. Symp. Stratified Flows*, Pasadena 1987, (ed. E.J. List & G.H. Jirka), pp.1037–1046. American Soc. of Civil Eng.
151. Klingmann, B. & Alfredsson, P.H. 1990 On the development of turbulent spots in plane Poiseuille flow. **Laminar-Turbulent Transition**, *Proc. 3rd IUTAM conf. on Laminar Turbulent transition*. (ed. D. Arnal & R. Michel) p. 43. Springer.
152. Ng, L., Singer, B.A., Henningson, D.S. & Alfredsson, P.H. 1990 Instabilities in rotating channel flow. In **Instability and Transition**, vol. II (ed. M.Y. Hussaini & R.G. Voigt), Springer.

153. Tillmark, N. & Alfredsson, P.H. 1991 An experimental study of transition in plane Couette flow. **Advances in Turbulence 3**, *Proc. Third Eur. Turbulence Conf.*, Stockholm July 1990, (ed. A.V. Johansson & P.H. Alfredsson) p. 235. Springer.
154. Klingmann, B. & Alfredsson, P.H. 1991 Experiments on the evolution of a point-like disturbance in plane Poiseuille flow into a turbulent spot. **Advances in Turbulence 3**, *Proc. Third European Turbulence Conference*, Stockholm July 1990, (ed. A.V. Johansson & P.H. Alfredsson) p. 182. Springer.
155. Matsson, O.J.E., Bottaro, A. & Alfredsson, P.H. 1991 Transition to turbulence in curved channel flow. *Proc. 8th Symp. on Turbulent Shear Flows*, pp. 18.2.1-6, Munich, Sept. 1991.
156. Tillmark, N. & Alfredsson, P.H. 1995 Structures in turbulent plane Couette flow obtained from correlation measurements. **Advances in Turbulence V**, *Proc. 5th European Turbulence Conf.* July 5-8, 1994, Siena, Italy (ed. Benzi, R.), 502-507. Kluwer.
157. Bakchinov, A.A., Westin, K.J.A., Kozlov, V.V. & Alfredsson, P.H. 1995 On the receptivity of a flat plate boundary layer to localized free stream disturbances. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*, Sendai, Sept. 5-9, 1994 (ed. Kobayashi, R.), 341-348. Springer.
158. Elofsson, P.A. & Alfredsson, P.H. 1995 Experiments on nonlinear interaction between oblique Tollmien-Schlichting waves. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*, Sendai, Sept. 5-9, 1994 (ed. Kobayashi, R.), 465-472. Springer.
159. Matsubara, M., & Alfredsson, P.H. 1995 Experiments on secondary instability of channel flow with body forces. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*, Sendai, Sept. 5-9, 1994 (ed. Kobayashi, R.), 229-236. Springer.
160. Alfredsson, P.H. & Matsubara, M. 1996 Streaky structures in transition. **Transitional Boundary Layers in Aeronautics**. (ed. R.A.W.M. Henkes and J.L. van Ingen), pp. 374-386. Elsevier Science Publishers.
161. Tillmark, N. & Alfredsson, P.H. 1996 Experiments on rotating plane Couette flow. **Advances in Turbulence VI** (ed. Gavrilakis, S., Machiels, L. and Monkewitz, P.A.), 391-394. Kluwer.
162. Alfredsson, P.H., Bakchinov, A.A., Kozlov, V.V. & Matsubara, M. 1996 Laminar-turbulent transition at a high level of a free stream turbulence. *Proc. IUTAM Symp. Nonlinear Instability and Transition in Three-dimensional boundary layers*. Manchester, England, July 17-20, 1995. pp. 423-436
163. Söderberg L.D. & Alfredsson, P.H. 1997, Experiments concerning the creation of streaky structures inside a plane water jet, *Forming bonds for better papermaking, Proc. 1997 Engineering & Papermakers Conf.*, pp. 1205-1222, TAPPI
164. Matsubara, M., Alfredsson, P.H. & Westin, K.J.A. 1998 Boundary layer transition at high levels of free stream turbulence. Paper no 98-GT-248 ASME. *Int. Gas Turbine & Aeroengine Congress & Exhibition*, Stockholm, June 2-5, 1998.
165. Tillmark, N. & Alfredsson, P.H. 1998 Large scale structures in turbulent plane Couette flow. **Advances in Turbulence VII**, *Proc. Seventh European Turbulence Conference*. Saint-Jean Cap Ferrat, July 1998, ed. U. Frisch, Kluwer, pp. 59-62.

166. Bakchinov, A.A., Katasonov, M.M., Alfredsson, P.H. & Kozlov, V.V. 1999 Control of boundary layer transition at high FST by localized suction. *Proc. IUTAM-Symposium on Mechanics of Passive and Active Flow Control*. Göttingen, Sept. 7-11, 1998 (eds. Meier, G.E.A. & Viswanath, P.R.), pp. 159-164, Kluwer.
167. Alfredsson, P.H. & Matsubara, M. 2000 Free-stream turbulence, streaky structures and transition in boundary layer flows. AIAA-paper 2000-2534, invited talk at *AIAA/Fluids 2000*, Denver, June 19-22, 2000.
168. Bakchinov, A.A., Katasonov, M.M., Alfredsson, P.H. & Kozlov, V.V. 2000 Control of streaky structures by localized blowing and suction. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*. Sedona, Sept. 13-17, 1999 (eds. Fasel, H.F. & Saric, W.S.), pp. 161-166, Springer.
169. Kohama, Y.P., Alfredsson, P.H., Egami, Y. & Kawakami, M. 2000 Turbulent energy production mechanism in general boundary layer transition. In **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*. Sedona, Sept. 13-17, 1999 (eds. Fasel, H.F. & Saric, W.S.), pp. 205-210, Springer.
170. Lingwood, R.J. & Alfredsson, P.H. 2000 Experimental study of the stability of the Bödewadt layer. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*. Sedona, Sept. 13-17, 1999 (eds. Fasel, H.F. & Saric, W.S.), pp. 553-558, Springer.
171. Lundell, F. & Alfredsson, P.H. 2000 Feed-forward control of streak instabilities in plane Poiseuille flow by localized suction. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*. Sedona, Sept. 13-17, 1999 (eds. Fasel, H.F. & Saric, W.S.), pp. 229-234, Springer.
172. Matsubara, M., Bakchinov, A.A., Fransson, J.H.M. & Alfredsson, P.H. 2000 Growth and breakdown of streaky structures in boundary layer transition induced by free stream turbulence. **Laminar-Turbulent Transition**, *Proc. IUTAM Symp. Laminar-Turbulent Transition*. Sedona, Sept. 13-17, 1999 (eds. Fasel, H.F. & Saric, W.S.), pp. 371-376, Springer.
173. Talamelli A., Fornaciari, N., Westin, K.J.A. & Alfredsson, P.H., 2001 Experimental investigation of streaky structures in a relaminarizing boundary layer. *Proc. Turbulence and Shear Flow Phenomena, TSFP-2*. Stockholm, June 27-29, 2001 (Ed. Lindborg, E. et al.), Vol. III pp. 215-220.
174. Fransson, J. & Alfredsson, P.H. 2001 Free stream turbulence induced disturbances in a uniform suction boundary layer. *Proc. Turbulence and Shear Flow Phenomena, TSFP-2*. Stockholm, June 27-29, 2001 (Ed. Lindborg, E. et al.), Vol. I pp. 353-358.
175. Shiomi J., Amberg G., & Alfredsson P.H. 2001 Active control of oscillatory thermocapillary convection. *Proc. Turbulence and Shear Flow Phenomena, TSFP-2*. Stockholm, June 27-29, 2001 (Ed. Lindborg, E. et al.), Vol. II pp. 473-478.
176. Yoshioka, S., Fransson, J. H. M. & Alfredsson, P.H. 2003 Evolution of disturbances in a boundary layer with wall suction. *Proc. Turbulent Shear Flow Phenomena 3*, Sendai, June 2003. (Ed. Kasagi, N. et al.) Vol. I pp. 489-494.
177. Yoshioka, S., Fransson, J. H. M. & Alfredsson, P.H. 2003 Evolution of disturbances in a boundary layer with wall suction. *European Fluid Mechanics Conf. 5*, Toulouse, August 2003.

178. Medici, D. & Alfredsson, P.H. 2004 Measurements on a wind turbine wake: 3D effects and bluff-body vortex shedding. *Proc. The science of making torque from the wind*, Delft, April 19-21, 2004.
179. Tillmark, N. & Alfredsson, P.H. 2004. Calibration and use of pressure sensitive paint (PSP) for a transonic flow application, *17th Symposium on Measuring Techniques in Transonic and Supersonic Flow in Cascades and Turbomachines*, Stockholm, September 9-10, 2004 (proceedings available on CD).
180. Medici, D. & Alfredsson, P.H. 2005 Wind turbine near wakes and comparisons to the wake behind a disc. AIAA-paper 2005-0595, *24th ASME Wind Energy Symposium*, Reno, January 10-13, 2005.
181. Tsuji, Y., Fransson, J.H.M., Alfredsson, P.H. & Johansson, A.V. 2005 Pressure statistics in high-Reynolds number turbulent boundary layer. *Turbulent Shear Flow Phenomena 4*, pp. 27–32, Williamsburg, Virginia, USA, June 27–29, 2005.
182. Lögdberg, O. & Alfredsson, P.H. 2005 Turbulent boundary layer separation - passive control. *Turbulent Shear Flow Phenomena 4*, pp. 549–554, Williamsburg, Virginia, USA, June 27–29, 2005.
183. Facciolo, L., Orlandi, P. & Alfredsson, P.H. 2005 Swirling jets issued from fully developed rotating pipe flow - experiments and numerics. *Turbulent Shear Flow Phenomena 4*, pp. 1243–1248, Williamsburg, Virginia, USA, June 27–29, 2005.
184. Alfredsson, P.H. & Tillmark, N. 2005 Instability, transition and turbulence in plane Couette flow with system rotation. Invited talk, in *Proc. IUTAM Symp., Non-uniqueness of solutions to the Navier-Stokes equations and their connection with laminar-turbulent transition*, Bristol, 9–11 August 2004, Springer, pp. 173–193.
185. Yoshioka, S. & Alfredsson, P.H. 2006 Control of turbulent boundary layers by uniform suction and blowing. 6th IUTAM Symp. laminar-Turbulent transition, Dec. 13-17, 2004, Bangalore, India. In *Fluid Mech. and its Applications*, Vol. 78, pp. 437-442.
186. Alfredsson, P.H. & Tillmark, N. 2006 Instability, transition and turbulence in plane Couette flow with system rotation. Invited talk, in *Proc. 35th and 36th JAXA Workshops on "Investigation and control of boundary-layer transition"*, Tokyo, 30 Sept. –1 Oct. 2004, JAXA Special Publication, pp. 15–16.
187. Facciolo, L., Alfredsson, P.H. & Maciel, Y. 2007 Near-field dynamics of a turbulent round jet with moderate swirl. *Fifth Int. Symp. Turbulence and Shear Flow Phenomena*, TU München, Germany, 27-29 August 2007 (eds. R. Friedrich et al.), pp. 917–922.
188. Tsuji, Y., Fransson, J.H.M., Alfredsson, P.H. & Johansson, A.V. 2008 Shear effect on pressure and particle acceleration in high-Reynolds-number turbulence. IUTAM Symp. Computational Physics and new Perspectives in Turbulence, Nagoya Univ, Nagoya, Japan, Sept. 11-14, 2006. In *IUTAM Bookseries* (ed. Y. Kaneda) Vol. 4, pp. 177-182.
189. Laurantzou, F., Tillmark, N. & Alfredsson, P.H. 2008 The corona mass flow meter. The 19th Symposium on Measuring Techniques in Transonic and Supersonic Flow in Cascades and Turbomachines, von Kàrmàn Institute Rhode-St-Genèse, Belgium, April 7-8, 2008.

190. Örlü, R., Segalini, A., Alfredsson, P.H. & Talamelli, A. 2008 Passive control of mixing in a coaxial jet. 7th Int. ERCOFTAC Symp. Engineering Turbulence Modelling and Measurements, 4-6 June, Limassol, Cyprus.
191. Talamelli, A., Rüedi, J.-D., Alfredsson, P.H., Nagib, H.M. & Monkewitz, P.A. 2008 The new high Reynolds number pipe flow facility at CICLoPE. AIAA-paper 2008-3966, 38th Fluid Dynamics Conference and Exhibit, 23-26 June 2008, Seattle, Washington.
192. Rüedi, J.-D., Talamelli, A., Nagib, H.M., Alfredsson, P.H. & Monkewitz, P.A. 2008 CICLoPE - A new high Reynolds number pipe flow facility for detailed turbulence measurements. In Proc. XXII ICTAM, 25-29 August 2008, Adelaide, Australia.
193. Tsukahara, T., Tillmark, N. & Alfredsson, P.H. 2008 Roll cells in turbulent plane Couette flow with system rotation. 7th Eur. Fluid Mech. Conf. EFMC7, Manchester, 14-18 Sept. 2008.
194. Örlü, R., Segalini, A., Alfredsson, P.H. & Talamelli, A. 2008 On the passive control of the near-field of coaxial jets by means of vortex shedding. Int. Conf. on Jets, Wakes and Separated Flows, CJWSF-2008, Sept. 16-19, 2008, Berlin.
195. Medici, D., Dahlberg, J.-Å. & Alfredsson, P.H. 2009 Wind tunnel measurements of the flow upstream a wind turbine: effects on the power production. EWEC 2009, March 16-19, Marseille.
196. Kurian, T., Fransson, J.H.M. & Alfredsson, P.H. 2009 Evolution of traveling crossflow modes over a swept flat plate. In Proc. Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter & D.S. Henningson), pp. 231-236, Springer.
197. Tsukahara, T., Kawaguchi, Y., Kawamura, H., Tillmark, N. & Alfredsson, P.H. 2009 Turbulence stripe in transitional channel flow with/without system rotation. In Proc. Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter & D.S. Henningson), pp. 421-426, Springer.
198. Segalini, A., Örlü, R., Alfredsson, P.H. & Talamelli, A. 2009 Experimental study on the use of the wake instability as a passive control in coaxial jet flows. In Proc. Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter & D.S. Henningson), pp. 541-544, Springer.
199. Örlü, R., Segalini, A., Alfredsson, P.H. & Talamelli, A. 2009 Effects of oblique waves on jet turbulence. In Proc. Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter & D.S. Henningson), pp. 361-366, Springer.
200. Rüedi, J.-D., Talamelli, A., Nagib, H.M., Alfredsson, P.H. & Monkewitz, P.A. 2009 CICLoPE - A large pipe facility for detailed turbulence measurements at high Reynolds number. Prog. in Turbulence III, iTi Conference on Turbulence III, 12-15 October 2008, Bertinoro (eds. J. Peinke, M. Oberlack & A. Talamelli) pp. 73-76.
201. Örlü, R., Segalini, A., Alfredsson, P.H. & Talamelli, A. 2009 On the passive control of the near-field of coaxial jets by means of vortex shedding. Prog. in Turbulence III, iTi Conference on Turbulence III, 12-15 October 2008, Bertinoro (eds. J. Peinke, M. Oberlack & A. Talamelli) pp. 231-234.
202. Segalini, A., Örlü, R., Alfredsson, P.H. & Talamelli, A. 2009 The effects of oblique waves on jet turbulence. Prog. in Turbulence III, iTi Conference on Turbulence III, 12-15 October 2008, Bertinoro (eds. J. Peinke, M. Oberlack & A. Talamelli) pp. 231-234.

203. Medici, D., Dahlberg, J.Å. & Alfredsson, P.H. 2009 Measurements of the flow upstream a rotating wind turbine model Prog. in Turbulence III, iTi Conference on Turbulence III, 12-15 October 2008, Bertinoro (eds. J. Peinke, M. Oberlack & A. Talamelli) pp. 87–90.
204. Kurian, T., Fransson, J.H.M. & Alfredsson, P.H. 2009 Evolution of traveling crossflow modes over a swept flat plate. IUTAM 7th Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter and D.S. Henningson), pp. 231–236.
205. Segalini, A., Örlü, R., Alfredsson, P.H. & Talamelli, A. 2009 Experimental study on the use of the wake instability as a passive control in coaxial jet flows. IUTAM 7th Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter and D.S. Henningson), pp. 361–366.
206. Tsukahara, T., Kawaguchi, Y., Kawamura, H., Tillmark, N. & Alfredsson, P.H. 2009 Turbulence stripe in transitional channel flow with/without system rotation. IUTAM 7th Symposium on Laminar-Turbulent Transition, June 23-26 2009, Stockholm (eds. P. Schlatter and D.S. Henningson), pp. 421–426.
207. Örlü, R., Segalini, A., Talamelli, A. & Alfredsson, P.H. 2009 Effect of oblique waves on jet turbulence. IUTAM 7th Symposium on Laminar-Turbulent Transition, June 23–26 2009, Stockholm (eds. P. Schlatter and D.S. Henningson), pp. 541–544.
208. Alfredsson, P. H., Örlü, R., Kurian, T., Fransson, J. H. M., Segalini, A., Rüedi, J.-D. & Talamelli, A. 2009 The diagnostic plot - a new way to appraise turbulent boundary-layer data. 12th EUROMECH European Turbulence Conference, Marburg, Sept. 7 - 10, 2009.
209. Örlü, R., Fransson, J.H.M. & Alfredsson, P.H. 2009 On imperfect hot-wire resolution issues and their effect on mean quantities. 12th EUROMECH European Turbulence Conference, Marburg, Sept. 7 - 10, 2009.
210. Laurantzon, F., Tillmark, N. & Alfredsson, P.H. 2010 A pulsating flow rig for analyzing turbocharger performance. In Proc. 9th Int. Conf. Turbochargers and Turbocharging, 19-20 May 2010, London, ImechE, pp. 363–372.
211. Kalpakli, A., Örlü, R., Tillmark, N. & Alfredsson, P.H. 2010 Experimental investigation on the effect of pulsations on turbulent flow through a 90 degrees pipe bend. Proc. 3rd Int. Conf. on Jets, Wakes and Separated Flows (Cincinnati, OH) pp. 1-6 (available on CD).
212. Pastuhoff, M., Tillmark, N. & Alfredsson P.H. 2010 Dynamic calibration of polymer/ceramic pressure sensitive paint using a shock tube. In Proc. 7th Int. Conf. on Flow Dynamics, 1–3 Nov. 2010, Sendai, GCOE Tohoku Univ. pp. 132–133.
213. Alfredsson, P.H., Tillmark, N. & Tsukahara, T. 2011 Spanwise rotation effects on shear flows. EUROMECH Colloquium 525, 21-23 June, Ecully, France, pp. 23-24 (invited talk).
214. Imayama, S., Alfredsson, P.H. & Lingwood, R.J. 2011 An experimental study of laminar-turbulent transition of a rotating-disk flow. EUROMECH Colloquium 525, 21-23 June, Ecully, France, pp. 29-30.
215. Talamelli, A., Segalini, A., Örlü, R., Schlatter, P. & Alfredsson, P. H., 2011 A method to correct statistical moments in turbulent flows. Proc. 13th EUROMECH European Turbulence Conference, September 12–15, 2011, Warsaw, Poland. *J. Phys.: Conf. Ser.* **318**, 042023.

216. Alfredsson, P. H., Örlü, R. & Segalini, A. 2011 A new formulation for the streamwise turbulence intensity distribution. Proc. 13th EUROMECH European Turbulence Conference, September 12–15, 2011, Warsaw, Poland. *J. Phys.: Conf. Ser.* **318**, 022002.
217. Kalpakli, S., Örlü, R., Tillmark, N. & Alfredsson, P. H. 2011 Pulsating turbulent flow through pipe bends: from an internal combustion engine perspective. Proc. 13th EUROMECH European Turbulence Conference, September 12–15, 2011, Warsaw, Poland. *J. Phys.: Conf. Ser.* **318**, 092023.
218. Segalini, A., Fransson, J.H.M. & Alfredsson, P. H. 2011 An experimental analysis of canopy flows. Proc. 13th EUROMECH European Turbulence Conference, September 12–15, 2011, Warsaw, Poland. *J. Phys.: Conf. Ser.* **318**, 072018.
219. Tsuji, Y.T., Imayama, S.I., Schlatter, P., Alfredsson, P.H. & Johansson, A.V. 2011 Pressure Fluctuation in High-Reynolds Number Turbulent Boundary Layer - Results from Experiments and Numerical Simulations. Seventh International Symposium on Turbulence and Shear Flow Phenomena, July 28 - 31, 2011, Ottawa, Canada
220. Segalini, A. S., Fransson, J. H. M., Dahlberg, J.Å. & Alfredsson, P.H. 2011 Gust structure and generation in canopy flows. EWEA conference, Brussels, Belgium, March 14-17 2011.
221. Alfredsson, P. H. & Örlü, R. 2012 A new way to determine the wall position and friction velocity in wall-bounded turbulent flows. Springer proc. Physics 141, *Progress in Turbulence and Wind Energy IV, Proc. iTi Conference on Turbulence 2010*, September 19–23, 2010, Bertinoro, Italy, pp. 181-185.
222. Kalpakli, A., Örlü, R., Tillmark, N. & Alfredsson, P.H. 2012 Experimental investigation on the effect of pulsations on exhaust manifold-related flows aiming at improved engine efficiency. *10th International Conference on Turbochargers and Turbocharging (iMechE)*, London, UK, May 15-16, 2012 377–387.
223. Laurantzon, F., Örlü, R., Segalini, A. S., Tillmark, N., Alfredsson, P.H. 2012 Experimental analysis of turbocharger interaction with a pulsatile flow through time-resolved flow measurements upstream and downstream the turbine. *10th International Conference on Turbochargers and Turbocharging (iMechE)*, London, UK, May 15-16, 2012, 405–415.
224. Romano D. G., Alfredsson, P.H., Hanifi, A., Örlü, R., Tillmark, N., Borodulin V.I., Ivanov A.V., Kachanov Y.S. & Minervino M. 2013 Design and tests of wind-tunnel sidewalls for receptivity experiments on a swept wing. In: Mechanical and Aerospace Engineering IV: Volume 390. Paper presented at 2013 4th International Conference on Mechanical and Aerospace Engineering, ICMAE 2013, 20-21 July 2013, Moscow. *Appl. Mech. Materials* **390**, 96–102, Trans Tech Publications Inc.
225. Futrzynski, R., Efraimsson, G. & Alfredsson, P.H. 2013 Numerical simulation of a plasma actuator on a half-submerged cylinder. Proc. 4th Int. Conf. Jets, Wakes and Separated Flows, September 17-21, 2013, Nagoya, Japan. pp. 1-6 (available on CD, paper no ICJWSF2013-1124).
226. Vernet, J., Örlü, R., Efraimsson, G. & Alfredsson, P.H. 2013 Experimental study of the electric wind induced by a dielectric barrier discharge plasma actuator. Proc. 4th Int. Conf. Jets, Wakes and Separated Flows, September 17-21, 2013, Nagoya, Japan. pp. 1-6 (available on CD, paper no ICJWSF2013-1153).

227. Segalini, A. S., Örlü, R., Castro, I.P. & Alfredsson, P.H., 2014 The streamwise turbulence intensity - a comparison between smooth and rough wall turbulent boundary layers. *iTi Conference on Turbulence*, 30 September - 3 October, 2012, Bertinoro, Italy, *Progress in Turbulence V*, **149**, 97–101, Springer.
228. Sattarzadeh, S.S., Ferro, M. and Örlü, R. & Alfredsson, P.H. 2014 Revisiting the near-wall scaling of the streamwise variance in turbulent pipe flows. *iTi Conference on Turbulence*, 30 September - 3 October, 2012, Bertinoro, Italy, *Progress in Turbulence V*, **149**, 113–119, Springer.
229. Imayama, S., Lingwood, R.J. & Alfredsson, P. H. 2013 An experimental study of a rotating-disk turbulent boundary-layer flow. *iTi Conference on Turbulence*, 30 September - 3 October, 2012, Bertinoro, Italy, *Progress in Turbulence V*, **149**, 173–176, Springer.
230. Kalpakli Vester, A., Örlü, R., Tillmark, N. & Alfredsson, P.H. 2014 The characteristics of turbulence in curved pipes under highly pulsatile flow conditions, *iTi Conference on Turbulence*, 30 September - 3 October, 2012, Bertinoro, Italy, *Progress in Turbulence V*, **149**, 183–187, Springer.
231. Segalini, A. S., Fransson, J. H. M. & Alfredsson, P.H. 2014 Turbulent structures in canopy flows. In *Wind Energy - Impact of Turbulence*, (eds. M. Hölling, J. Peinke and S. Ivanell) pp. 85–91, Springer.
232. Appelquist, E., Schlatter, P., Alfredsson, P.H. & Lingwood, R.J. 2015 Investigation of the global instability of the rotating-disk boundary layer. *Procedia IUTAM* **14**, 321–328.
233. Vernet, J.A. Örlü, R. & Alfredsson, P.H. 2016 Turbulent boundary layer upstream, over and downstream a cylindrical 2D bump. *iTi Conference on Turbulence*, 21–25 September, 2014, Bertinoro, Italy, (eds. J. Peinke et al.), *Progress in Turbulence VI*, Springer Proceedings in Physics **165**, pp. 279–283.
234. Ikeya, Y., Örlü, R., Fukagata, K. & Alfredsson, P.H. 2016 Revisiting hot-wire anemometry close to solid walls. *ERCOTAC Bulletin* **108**, pp. 30–35. Presented at the 11th ERCOTAC Symp. Engineering Turbulence Modeling and Measurement (ETMM11), Palemoro, Italy, Sept. 21–23, 2016.
235. Fiorini, T., Bellani, G., Örlü, R., Segalini, A., Alfredsson, P.H. & Talamelli, A. 2017 Turbulent Pipe Flow Near-Wall Statistics. R. Örlü et al. (eds.), *Progress in Turbulence VII*, Springer Proceedings in Physics 196, pp. 89–94
236. Kawata, T. & Alfredsson, P.H. 2017 Flow Structures and Momentum Transport in Turbulent Rotating Plane Couette Flow. R. Örlü et al. (eds.), *Progress in Turbulence VII*, Springer Proceedings in Physics 196, pp. 51–58
237. Kato, K., Segalini, A., Alfredsson, P.H. & Lingwood, R.J. 2021 Instabilities and Transition on a Rotating Cone – Old Problems and New Challenges. *IUTAM Bookseries* 38. *Laminar-Turbulent Transition*, 9th IUTAM Symposium, London, UK, Sept. 2–6, 2019, pp. 203–213.
238. Ito, T. , Ito, T., Alfredsson, P.H., Segalini, A. & Matsubara, M. 2021 On similarity of turbulence statistics of a turbulent planar jet taking the static pressure into account. R. Örlü et al. (eds.), *Progress in Turbulence IX*, Springer Proceedings in Physics 267, pp. 43–49.

239. Alfredsson, P.H., Segalini, A. & Örlü, R. 2021 The Diagnostic Plot—A Tutorial with a Ten Year Perspective. R. Örlü et al. (eds.), *Progress in Turbulence IX*, Springer Proceedings in Physics 267, pp. 125–135.
240. Kato, K., Alfredsson, P.H. & Lingwood, R.J. 2021 Instability on rotating sharp cones – revisited. R. Örlü et al. (eds.), *Progress in Turbulence IX*, Springer Proceedings in Physics 267, pp. 259–265.

Book chapters

241. Johansson, A.V. & Alfredsson, P.H. 1986 Structure of turbulent channel flows, Book chapter in **Encyclopedia of Fluid Mechanics**, vol. 1, Gulf Publ. Co.
242. Henningson, D.S. & Alfredsson, P.H. 1996 Stability and transition of boundary layer flows. Book chapter in **Turbulence and transition modelling** (M. Hallböck et al., eds). Kluwer, pp. 13–80.
243. Alfredsson, P.H. & Burden, A. 1999 Introduction. Book chapter in **Transition, Turbulence and Combustion Modelling** (A. Hanifi et al., eds). Kluwer, pp. 1–35. Kluwer.
244. Alfredsson, P.H. & Lingwood, R.J. 2014 Rotation effects on wall-bounded flows - some laboratory experiments. Book chapter in AGU Book Series: **Modeling Atmospheric and Oceanic Fluid Flows: Insights From Laboratory Experiments**. pp. 85–100.

Edited books and special issues

245. Johansson, A.V. & Alfredsson, P.H. 1991 Editors for **Advances in Turbulence 3**, Springer.
246. Alfredsson, P.H., Bark, F.H. & Johansson, A.V. 1994 Editors for special volume of *Appl. Sci. Res.* **53**.
247. Hallböck, M., Henningson, D.S., Johansson, A.V. & Alfredsson, P.H. 1996 Editors for **Turbulence and transition modelling**, Kluwer.
248. Hanifi, A. Alfredsson, P.H., Johansson & A.V. Henningson, D.S. 1999 Editors for **Transition, Turbulence and Combustion Modelling** ISBN 0-7923-5989-5, Kluwer.
249. Alfredsson, P.H. & Amberg, G. 1999 Editors for **Svensk mekanik inför 2000-talet**, *TRITA-MEK 99:07*.
250. Alfredsson, P.H. & Segalini, A. 2017 Editors for **Wind farms in complex terrain**, *Phil. Trans. R. Soc. A* **375**.

Popular texts

251. Alfredsson, P.H. 2015 Reynolds at the dawn of fluid mechanics, The Royal Society Publishing Blog. <http://blogs.royalsociety.org/publishing/reynolds-at-the-dawn-of-fluid-mechanics/>

Patent

252. Sedlak, V., Talamelli, A., Rosetti, A. & Alfredsson, P.H. 2016 Dispositivo aerodinamico per uso motosiclistico. Italian patent 0001423018.