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Curriculum Vitae for P. Henrik Alfredsson

Date of birth: March 11, 1954
Nationality: Swedish
Business address: KTH Mechanics, SE-100 44 Stockholm, Sweden.
Phone: +46-(0)8-790 7582, mobile +46-(0)70-573 5099
Email: phal@mech.kth.se

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 assistent, 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. Rhyming 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. Hallbäck, 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 Nationalkommitten 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–

Advisorship 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 Lögdberg (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 docent 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 - 210430

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

- more than 140 papers (published/accepted) in journals with referee system (h-index 40, Web of Science; h-index 47 Google scholar, 2022-08-16)
- more than 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_θ=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., Örlu, 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.

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