

# Stefan Wallin

## List of Publications by Year in descending order

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55  
papers

1,384  
citations

623188

14  
h-index

329751

37  
g-index

57  
all docs

57  
docs citations

57  
times ranked

689  
citing authors

#	ARTICLE	IF	CITATIONS
1	An explicit algebraic Reynolds stress model for incompressible and compressible turbulent flows. <i>Journal of Fluid Mechanics</i> , 2000, 403, 89-132.	1.4	627
2	Modelling streamline curvature effects in explicit algebraic Reynolds stress turbulence models. <i>International Journal of Heat and Fluid Flow</i> , 2002, 23, 721-730.	1.1	101
3	Direct numerical simulations of rotating turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2008, 598, 177-199.	1.4	99
4	Derivation and investigation of a new explicit algebraic model for the passive scalar flux. <i>Physics of Fluids</i> , 2000, 12, 688-702.	1.6	65
5	Closure modeling in bridging regions of variable-resolution (VR) turbulence computations. <i>Journal of Turbulence</i> , 2013, 14, 72-98.	0.5	36
6	Extending the weak-equilibrium condition for algebraic Reynolds stress models to rotating and curved flows. <i>Journal of Fluid Mechanics</i> , 2004, 518, 147-155.	1.4	33
7	Exploring $k$ and $\bar{u}$ with RANS Equation Model Using Elliptic Relaxation Function. <i>Flow, Turbulence and Combustion</i> , 2012, 89, 121-148.	1.4	28
8	An explicit algebraic Reynolds-stress and scalar-flux model for stably stratified flows. <i>Journal of Fluid Mechanics</i> , 2013, 723, 91-125.	1.4	26
9	Explicit algebraic Reynolds stress and non-linear eddy-viscosity models. <i>International Journal of Computational Fluid Dynamics</i> , 2009, 23, 349-361.	0.5	25
10	Laminarization mechanisms and extreme-amplitude states in rapidly rotating plane channel flow. <i>Journal of Fluid Mechanics</i> , 2013, 730, 193-219.	1.4	24
11	Assessment of explicit algebraic Reynolds-stress turbulence models in aerodynamic computations. <i>Aerospace Science and Technology</i> , 2005, 9, 573-581.	2.5	21
12	Evaluation of a Vortex Generator Model in Adverse Pressure Gradient Boundary Layers. <i>AIAA Journal</i> , 2011, 49, 982-993.	1.5	20
13	Large eddy simulation of channel flow with and without periodic constrictions using the explicit algebraic subgrid-scale model. <i>Journal of Turbulence</i> , 2014, 15, 752-775.	0.5	16
14	A New Explicit Algebraic Reynolds Stress Model. <i>Fluid Mechanics and Its Applications</i> , 1996, , 31-34.	0.1	14
15	Study of Transitions in the Atmospheric Boundary Layer Using Explicit Algebraic Turbulence Models. <i>Boundary-Layer Meteorology</i> , 2016, 161, 19-47.	1.2	14
16	Evaluation and Parameterization of Round Vortex Generator Jet Experiments for Flow Control. <i>AIAA Journal</i> , 2012, 50, 2508-2524.	1.5	13
17	Vortex-Generator Models for Zero- and Adverse-Pressure-Gradient Flows. <i>AIAA Journal</i> , 2012, 50, 855-866.	1.5	13
18	Evolution of an Isolated Turbulent Trailing Vortex. <i>AIAA Journal</i> , 2000, 38, 657-665.	1.5	12

#	ARTICLE	IF	CITATIONS
19	Improving LES with OpenFOAM by minimising numerical dissipation and use of explicit algebraic SGS stress model. <i>Journal of Turbulence</i> , 2019, 20, 697-722.	0.5	12
20	A prediction method for high speed turbulent separated flows with experimental verification. , 1998, , .		11
21	An explicit algebraic Reynolds stress model based on a nonlinear pressure strain rate model. <i>International Journal of Heat and Fluid Flow</i> , 2005, 26, 732-745.	1.1	11
22	Efficient treatment of the nonlinear features in algebraic Reynolds-stress and heat-flux models for stratified and convective flows. <i>International Journal of Heat and Fluid Flow</i> , 2015, 53, 15-28.	1.1	11
23	Design of the centrifugal fan of a belt-driven starter generator with reduced flow noise. <i>International Journal of Heat and Fluid Flow</i> , 2019, 76, 72-84.	1.1	10
24	Taking large-eddy simulation of wall-bounded flows to higher Reynolds numbers by use of anisotropy-resolving subgrid models. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	10
25	Design of Active Flow Control at a Drooped Spoiler Configuration. , 2013, , .		9
26	Statistical Vortex-Generator-Jet Model for Turbulent Flow Separation Control. <i>AIAA Journal</i> , 2013, 51, 1119-1129.	1.5	9
27	Telecom Network and Service Management: An Operator Survey. <i>Lecture Notes in Computer Science</i> , 2009, , 15-26.	1.0	9
28	Observations on the predictions of fully developed rotating pipe flow using differential and explicit algebraic Reynolds stress models. <i>European Journal of Mechanics, B/Fluids</i> , 2006, 25, 95-112.	1.2	8
29	Statistical analysis and prioritisation of alarms in mobile networks. <i>International Journal of Business Intelligence and Data Mining</i> , 2009, 4, 4.	0.2	8
30	A CFD benchmark of active flow control for buffet prevention. <i>CEAS Aeronautical Journal</i> , 2020, 11, 837-847.	0.9	8
31	Statistical modelling of the influence of turbulent flow separation control devices. , 2009, , .		7
32	Chasing a Definition of "Alarm". <i>Journal of Network and Systems Management</i> , 2009, 17, 457-481.	3.3	7
33	Near-wall damping in model predictions of separated flows. <i>International Journal of Computational Fluid Dynamics</i> , 2016, 30, 218-230.	0.5	7
34	Consistent Boundary-Condition Treatment for Computation of the Atmospheric Boundary Layer Using the Explicit Algebraic Reynolds-Stress Model. <i>Boundary-Layer Meteorology</i> , 2019, 171, 53-77.	1.2	7
35	A realizable explicit algebraic Reynolds stress model for compressible turbulent flow with significant mean dilatation. <i>Physics of Fluids</i> , 2013, 25, 105112.	1.6	6
36	Scrutinizing Curvature Corrections for Algebraic Reynolds Stress Models. , 2002, , .		5

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37	Computational study of the high-lift A-airfoil. , 2001, , .		4
38	Techniques for deriving explicit algebraic Reynolds stress models based on incomplete sets of basis tensors and predictions of fully developed rotating pipe flow. Physics of Fluids, 2005, 17, 115103.	1.6	4
39	Computation validation on lateral jet interactions at supersonic speeds. International Journal of Engineering Systems Modelling and Simulation, 2013, 5, 68.	0.2	4
40	A priori evaluations and least-squares optimizations of turbulence models for fully developed rotating turbulent channel flow. European Journal of Mechanics, B/Fluids, 2008, 27, 75-95.	1.2	3
41	Rethinking network management: Models, data-mining and self-learning. , 2012, , .		3
42	Simulation of laser propagation through jet plumes using computational fluid dynamics. Proceedings of SPIE, 2013, , .	0.8	3
43	Capturing turbulent density flux effects in variable density flow by an explicit algebraic model. Physics of Fluids, 2015, 27, 045108.	1.6	3
44	Algebraic Reynolds stress modeling of turbulence subject to rapid homogeneous and non-homogeneous compression or expansion. Physics of Fluids, 2016, 28, .	1.6	3
45	Improving separated-flow predictions using an anisotropy-capturing subgrid-scale model. International Journal of Heat and Fluid Flow, 2017, 65, 246-251.	1.1	3
46	Modelling of Stably Stratified Atmospheric Boundary Layers with Varying Stratifications. Boundary-Layer Meteorology, 2020, 176, 229-249.	1.2	3
47	Computational Study of the High-Lift A-Airfoil. Journal of Aircraft, 2001, 38, 769-772.	1.7	2
48	The semantics of alarm definitions: enabling systematic reasoning about alarms. International Journal of Network Management, 2012, 22, 181-198.	1.4	2
49	Simulating jet exhaust plumes for optical propagation calculations. , 2014, , .		1
50	Explicit Algebraic Reynolds-stress Modelling of a Convective Atmospheric Boundary Layer Including Counter-Gradient Fluxes. Boundary-Layer Meteorology, 2021, 178, 487-497.	1.2	1
51	Evaluating vortex generator jet experiments for turbulent flow separation control. Journal of Physics: Conference Series, 2011, 318, 022038.	0.3	0
52	A novel modeling approach for vortex generator jet flow separation control. , 2012, , .		0
53	Application of Reynolds Stress Models to High-Lift Aerodynamics Applications. , 2005, , 607-616.		0
54	Stability and laminarisation of turbulent rotating channel flow. Springer Proceedings in Physics, 2009, , 177-178.	0.1	0

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55	Contribution by FOI. , 2006, , 73-76.		0