

Susan Vierra

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4369887/publications.pdf>

Version: 2024-02-01

39
papers

2,455
citations

279798

23
h-index

302126

39
g-index

40
all docs

40
docs citations

40
times ranked

1248
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | An Eulerian gyrokinetic-Maxwell solver. <i>Journal of Computational Physics</i> , 2003, 186, 545-581. | 3.8 | 543 |
| 2 | Kinetic calculation of neoclassical transport including self-consistent electron and impurity dynamics. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 095010. | 2.1 | 277 |
| 3 | Full linearized Fokker-Planck collisions in neoclassical transport simulations. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 015015. | 2.1 | 154 |
| 4 | Implementation and application of two synthetic diagnostics for validating simulations of core tokamak turbulence. <i>Physics of Plasmas</i> , 2009, 16, . | 1.9 | 119 |
| 5 | Electromagnetic Transport from Microtearing Mode Turbulence. <i>Physical Review Letters</i> , 2011, 106, 155004. | 7.8 | 118 |
| 6 | A high-accuracy Eulerian gyrokinetic solver for collisional plasmas. <i>Journal of Computational Physics</i> , 2016, 324, 73-93. | 3.8 | 112 |
| 7 | Multi-scale gyrokinetic simulation of tokamak plasmas: enhanced heat loss due to cross-scale coupling of plasma turbulence. <i>Nuclear Fusion</i> , 2016, 56, 014004. | 3.5 | 100 |
| 8 | The role of zonal flows in the saturation of multi-scale gyrokinetic turbulence. <i>Physics of Plasmas</i> , 2016, 23, . | 1.9 | 91 |
| 9 | 20 years of research on the Alcator C-Mod tokamak. <i>Physics of Plasmas</i> , 2014, 21, . | 1.9 | 88 |
| 10 | Gyrokinetic theory and simulation of angular momentum transport. <i>Physics of Plasmas</i> , 2007, 14, 122507. | 1.9 | 80 |
| 11 | A unified method for operator evaluation in local Grad-Shafranov plasma equilibria. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 105009. | 2.1 | 70 |
| 12 | An Eulerian method for the solution of the multi-species drift-kinetic equation. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 075018. | 2.1 | 68 |
| 13 | Progress in simulating turbulent electron thermal transport in NSTX. <i>Nuclear Fusion</i> , 2013, 53, 093022. | 3.5 | 67 |
| 14 | Quantitative comparison of experimental impurity transport with nonlinear gyrokinetic simulation in an Alcator C-Mod L-mode plasma. <i>Nuclear Fusion</i> , 2012, 52, 063002. | 3.5 | 60 |
| 15 | Multi-scale gyrokinetic simulations: Comparison with experiment and implications for predicting turbulence and transport. <i>Physics of Plasmas</i> , 2016, 23, . | 1.9 | 59 |
| 16 | Synergistic cross-scale coupling of turbulence in a tokamak plasma. <i>Physics of Plasmas</i> , 2014, 21, . | 1.9 | 52 |
| 17 | Resolving electron scale turbulence in spherical tokamaks with flow shear. <i>Physics of Plasmas</i> , 2011, 18, . | 1.9 | 40 |
| 18 | Velocity-space resolution, entropy production, and upwind dissipation in Eulerian gyrokinetic simulations. <i>Physics of Plasmas</i> , 2006, 13, 032310. | 1.9 | 39 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Studies of turbulence and transport in Alcator C-Mod ohmic plasmas with phase contrast imaging and comparisons with gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2009, 51, 065006. | 2.1 | 34 |
| 20 | Testing predictions of electron scale turbulent pedestal transport in two DIII-D ELMy H-modes. Nuclear Fusion, 2021, 61, 056005. | 3.5 | 30 |
| 21 | Multi-scale gyrokinetic simulation of Alcator C-Mod tokamak discharges. Physics of Plasmas, 2014, 21, . | 1.9 | 29 |
| 22 | Role of Microtearing Turbulence in DIII-D High Bootstrap Current Fraction Plasmas. Physical Review Letters, 2019, 123, 225002. | 7.8 | 26 |
| 23 | Implications of advanced collision operators for gyrokinetic simulation. Plasma Physics and Controlled Fusion, 2017, 59, 045005. | 2.1 | 25 |
| 24 | Gradient-driven flux-tube simulations of ion temperature gradient turbulence close to the non-linear threshold. Physics of Plasmas, 2016, 23, . | 1.9 | 21 |
| 25 | Validation of nonlinear gyrokinetic simulations of L- and I-mode plasmas on Alcator C-Mod. Physics of Plasmas, 2017, 24, . | 1.9 | 21 |
| 26 | Impact of centrifugal drifts on ion turbulent transport. Physics of Plasmas, 2018, 25, 032301. | 1.9 | 20 |
| 27 | Nonlinear gyrokinetic simulations of the I-mode high confinement regime and comparisons with | 1.9 | 16 |
| 28 | Testing gyrokinetic simulations of electron turbulence. Nuclear Fusion, 2012, 52, 063028. | 3.5 | 15 |
| 29 | Spectral treatment of gyrokinetic shear flow. Journal of Computational Physics, 2018, 356, 448-457. | 3.8 | 13 |
| 30 | Spectral treatment of gyrokinetic profile curvature. Plasma Physics and Controlled Fusion, 2020, 62, 042001. | 2.1 | 10 |
| 31 | Multiscale-optimized plasma turbulence simulation on petascale architectures. Computers and Fluids, 2019, 188, 125-135. | 2.5 | 9 |
| 32 | Ion thermal transport in the H-mode edge transport barrier on DIII-D. Physics of Plasmas, 2022, 29, . | 1.9 | 9 |
| 33 | Interpreting radial correlation Doppler reflectometry using gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2022, 64, 055019. | 2.1 | 9 |
| 34 | Fluid moments of the nonlinear Landau collision operator. Physics of Plasmas, 2016, 23, . | 1.9 | 8 |
| 35 | Quantitative comparisons of electron-scale turbulence measurements in NSTX via synthetic diagnostics for high- k scattering. Plasma Physics and Controlled Fusion, 2020, 62, 075001. | 2.1 | 7 |
| 36 | Validation of gyrokinetic simulations of a National Spherical Torus eXperiment H-mode plasma and comparisons with a high- k scattering synthetic diagnostic. Plasma Physics and Controlled Fusion, 2019, 61, 115015. | 2.1 | 6 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | The Gaussian radial basis function method for plasma kinetic theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2735-2739. | 2.1 | 5 |
| 38 | Validation of gyrokinetic simulations in NSTX and projections for high-k turbulence measurements in NSTX-U. Physics of Plasmas, 2020, 27, 122505. | 1.9 | 4 |
| 39 | CGYRO Performance on Power9 CPUs and Volta GPUs. Lecture Notes in Computer Science, 2018, , 365-372. | 1.3 | 0 |