

# Alessandra S Lanotte

## List of Publications by Year in descending order

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Version: 2024-02-01

77  
papers

5,606  
citations

117625

34  
h-index

74163

75  
g-index

83  
all docs

83  
docs citations

83  
times ranked

2681  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Response of shear-activated nanotherapeutic particles in a clot-obstructed blood vessel by <sc>CFD-DEM</sc> simulations. Canadian Journal of Chemical Engineering, 2022, 100, 3562-3574. | 1.7  | 7         |
| 2  | Enhancement of Parametric Effects in Polariton Waveguides Induced by Dipolar Interactions. Physical Review Letters, 2021, 126, 137401.   | 7.8  | 9         |
| 3  | Dynamics of a Vortex Lattice in an Expanding Polariton Quantum Fluid. Physical Review Letters, 2021, 127, 047401.  | 7.8  | 5         |
| 4  | Superballistic flow of viscous electron fluid through graphene constrictions. Nature Physics, 2017, 13, 1182-1185.   | 16.7 | 288       |
| 5  | Introduction to Focus Issue: Two-Dimensional Turbulence. Physics of Fluids, 2017, 29, .  | 4.0  | 17        |
| 6  | Effects of vertical shear in modelling horizontal oceanic dispersion. Ocean Science, 2016, 12, 207-216.  | 3.4  | 4         |
| 7  | On the vortex dynamics in fractal Fourier turbulence. European Physical Journal E, 2016, 39, 49.   | 1.6  | 14        |
| 8  | Lagrangian statistics for Navier-Stokes turbulence under Fourier-mode reduction: fractal and homogeneous decimations. New Journal of Physics, 2016, 18, 113047.                          | 2.9  | 26        |
| 9  | The Role of Hydrodynamic Processes on Anchovy Eggs and Larvae Distribution in the Sicily Channel (Mediterranean Sea): A Case Study for the 2004 Data Set. PLoS ONE, 2015, 10, e0123213.  | 2.5  | 37        |
| 10 | Turbulence on a Fractal Fourier Set. Physical Review Letters, 2015, 115, 264502.   | 7.8  | 43        |
| 11 | Numerical simulations of aggregate breakup in bounded and unbounded turbulent flows. Journal of Fluid Mechanics, 2015, 766, 104-128.   | 3.4  | 36        |
| 12 | The role of subsidence in a weakly unstable marine boundary layer: a case study. Nonlinear Processes in Geophysics, 2014, 21, 489-501.   | 1.3  | 1         |
| 13 | The hysteresis cycle of concentration in a solution droplet under changing humidity. EPJ Applied Physics, 2014, 67, 11101.   | 0.7  | 0         |
| 14 | An accurate and efficient Lagrangian sub-grid model. Physics of Fluids, 2014, 26, 095101.  | 4.0  | 15        |
| 15 | Pair and multi-particle dispersion in numerical simulations of convective boundary layer turbulence. Physics of Fluids, 2014, 26, .  | 4.0  | 11        |
| 16 | Intermittency in the relative separations of tracers and of heavy particles in turbulent flows. Journal of Fluid Mechanics, 2014, 757, 550-572.  | 3.4  | 23        |
| 17 | Flight-crash events in turbulence. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7558-7563.  | 7.1  | 72        |
| 18 | Lagrangian simulations and interannual variability of anchovy egg and larva dispersal in the Sicily Channel. Journal of Geophysical Research: Oceans, 2014, 119, 1306-1323.              | 2.6  | 31        |

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|----|--|------|-----------|
| 19 | Internal stresses and breakup of rigid isostatic aggregates in homogeneous and isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2014, 755, 365-396.       | 3.4  | 25        |
| 20 | Scalar Turbulence in Convective Boundary Layers by Changing the Entrainment Flux. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 248-265.                 | 1.7  | 10        |
| 21 | A new assessment of the second-order moment of Lagrangian velocity increments in turbulence. <i>Journal of Turbulence</i> , 2013, 14, 34-48.                       | 1.4  | 12        |
| 22 | Breakup of small aggregates driven by turbulent hydrodynamical stress. <i>Physical Review E</i> , 2012, 85, 025301.  | 2.1  | 32        |
| 23 | On Lagrangian single-particle statistics. <i>Physics of Fluids</i> , 2012, 24, 055102.   | 4.0  | 46        |
| 24 | Flux correlations in supersonic isothermal turbulence. <i>Journal of Fluid Mechanics</i> , 2012, 713, 482-490.   | 3.4  | 28        |
| 25 | Active and passive scalar intermittent statistics in turbulent atmospheric convection. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 251-259.                 | 2.8  | 18        |
| 26 | Upscale energy transfer in thick turbulent fluid layers. <i>Nature Physics</i> , 2011, 7, 321-324.   | 16.7 | 139       |
| 27 | Turbulent pair dispersion of inertial particles. <i>Journal of Fluid Mechanics</i> , 2010, 645, 497-528.   | 3.4  | 81        |
| 28 | New relations for correlation functions in Navier-Stokes turbulence. <i>Journal of Fluid Mechanics</i> , 2010, 644, 465-472.                                       | 3.4  | 55        |
| 29 | Intermittency in the velocity distribution of heavy particles in turbulence. <i>Journal of Fluid Mechanics</i> , 2010, 646, 527-536.                               | 3.4  | 103       |
| 30 | Cloud Droplet Growth by Condensation in Homogeneous Isotropic Turbulence. <i>Journals of the Atmospheric Sciences</i> , 2009, 66, 1685-1697.                       | 1.7  | 66        |
| 31 | Spectrally condensed turbulence in thin layers. <i>Physics of Fluids</i> , 2009, 21, .   | 4.0  | 99        |
| 32 | Could waves mix the ocean?. <i>Journal of Fluid Mechanics</i> , 2009, 638, 1-4.  | 3.4  | 20        |
| 33 | Statistical behaviour of isotropic and anisotropic fluctuations in homogeneous turbulence. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 1969-1975.           | 2.8  | 10        |
| 34 | Lagrangian structure functions in turbulence: A quantitative comparison between experiment and direct numerical simulation. <i>Physics of Fluids</i> , 2008, 20, . | 4.0  | 74        |
| 35 | Universal Intermittent Properties of Particle Trajectories in Highly Turbulent Flows. <i>Physical Review Letters</i> , 2008, 100, 254504.                          | 7.8  | 145       |
| 36 | Heavy Particle Clustering in Turbulent Flows. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2008, , 79-84.                                  | 0.2  | 0         |

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|----|---|------|-----------|
| 37 | Anisotropies and Universality of Buoyancy-Dominated Turbulent Fluctuations: A Large-Eddy Simulation Study. <i>Journals of the Atmospheric Sciences</i> , 2007, 64, 2642-2656. | 1.7  | 10        |
| 38 | Heavy Particle Concentration in Turbulence at Dissipative and Inertial Scales. <i>Physical Review Letters</i> , 2007, 98, 084502.   | 7.8  | 283       |
| 39 | Lagrangian and Eulerian descriptions of inertial particles in random flows. <i>Journal of Turbulence</i> , 2007, 8, N16.  | 1.4  | 28        |
| 40 | Nodal patterns of floaters in surface waves. <i>European Physical Journal: Special Topics</i> , 2007, 145, 125-136.   | 2.6  | 13        |
| 41 | Nodal lines in turbulence. <i>European Physical Journal: Special Topics</i> , 2007, 145, 211-216.   | 2.6  | 1         |
| 42 | Acceleration statistics of heavy particles in turbulence. <i>Journal of Fluid Mechanics</i> , 2006, 550, 349.   | 3.4  | 211       |
| 43 | Dynamics and statistics of heavy particles in turbulent flows. <i>Journal of Turbulence</i> , 2006, 7, N36.   | 1.4  | 67        |
| 44 | Conformal invariance in two-dimensional turbulence. <i>Nature Physics</i> , 2006, 2, 124-128.   | 16.7 | 154       |
| 45 | Effects of vortex filaments on the velocity of tracers and heavy particles in turbulence. <i>Physics of Fluids</i> , 2006, 18, 081702.  | 4.0  | 35        |
| 46 | Lagrangian statistics in fully developed turbulence. <i>Journal of Turbulence</i> , 2006, 7, N6.  | 1.4  | 14        |
| 47 | Droplet condensation in turbulent flows. <i>Europhysics Letters</i> , 2005, 70, 775-781.  | 2.0  | 50        |
| 48 | Floater clustering in a standing wave. <i>Nature</i> , 2005, 435, 1045-1046.  | 27.8 | 69        |
| 49 | Acceleration and vortex filaments in turbulence. <i>Journal of Turbulence</i> , 2005, 6, N15.   | 1.4  | 29        |
| 50 | Particle trapping in three-dimensional fully developed turbulence. <i>Physics of Fluids</i> , 2005, 17, 021701.   | 4.0  | 132       |
| 51 | Effects of Forcing in Three-Dimensional Turbulent Flows. <i>Physical Review Letters</i> , 2004, 92, 094503.   | 7.8  | 34        |
| 52 | Multifractal Statistics of Lagrangian Velocity and Acceleration in Turbulence. <i>Physical Review Letters</i> , 2004, 93, 064502.   | 7.8  | 192       |
| 53 | Universality of anisotropic turbulence. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 338, 194-200.  | 2.6  | 7         |
| 54 | Theoretical and numerical study of highly anisotropic turbulent flows. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 401-414.                                    | 2.5  | 12        |

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|----|--|------|-----------|
| 55 | Anomalous scaling and universality in hydrodynamic systems with power-law forcing. <i>New Journal of Physics</i> , 2004, 6, 37-37.                           | 2.9  | 26        |
| 56 | The decay of homogeneous anisotropic turbulence. <i>Physics of Fluids</i> , 2003, 15, 2105-2112.   | 4.0  | 33        |
| 57 | Inverse velocity statistics in two-dimensional turbulence. <i>Physics of Fluids</i> , 2003, 15, 1012-1020.   | 4.0  | 18        |
| 58 | Anomalous and dimensional scaling in anisotropic turbulence. <i>Physical Review E</i> , 2002, 66, 056306.  | 2.1  | 33        |
| 59 | Acceleration of rain initiation by cloud turbulence. <i>Nature</i> , 2002, 419, 151-154.   | 27.8 | 533       |
| 60 | Particles and fields in fluid turbulence. <i>Reviews of Modern Physics</i> , 2001, 73, 913-975.  | 45.6 | 1,079     |
| 61 | Fronts in passive scalar turbulence. <i>Physics of Fluids</i> , 2001, 13, 1768-1783.   | 4.0  | 91        |
| 62 | Inverse Statistics of Smooth Signals: The Case of Two Dimensional Turbulence. <i>Physical Review Letters</i> , 2001, 87, 124501.                             | 7.8  | 19        |
| 63 | Intermittent Distribution of Inertial Particles in Turbulent Flows. <i>Physical Review Letters</i> , 2001, 86, 2790-2793.                                    | 7.8  | 300       |
| 64 | Universality and Saturation of Intermittency in Passive Scalar Turbulence. <i>Physical Review Letters</i> , 2000, 84, 2385-2388.                             | 7.8  | 103       |
| 65 | Persistence of small-scale anisotropies and anomalous scaling in a model of magnetohydrodynamics turbulence. <i>Physical Review E</i> , 2000, 61, 6586-6605. | 2.1  | 67        |
| 66 | Coherent structures in random shell models for passive scalar advection. <i>Physical Review E</i> , 1999, 60, R6299-R6302.                                   | 2.1  | 8         |
| 67 | Large-scale dynamo produced by negative magnetic eddy diffusivities. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1999, 91, 131-146.                | 1.2  | 35        |
| 68 | Passive scalar intermittency in compressible flow. <i>Physical Review E</i> , 1999, 60, R1138-R1141.   | 2.1  | 17        |
| 69 | Anisotropic nonperturbative zero modes for passively advected magnetic fields. <i>Physical Review E</i> , 1999, 60, R3483-R3486.                             | 2.1  | 53        |
| 70 | Large-scale properties of passive scalar advection. <i>Physics of Fluids</i> , 1999, 11, 2269-2279.  | 4.0  | 14        |
| 71 | Two complementary descriptions of intermittency. <i>Physical Review E</i> , 1998, 57, R1231-R1234.   | 2.1  | 13        |
| 72 | Three-point correlation function of a scalar mixed by an almost smooth random velocity field. <i>Physical Review E</i> , 1997, 55, R4881-R4884.              | 2.1  | 17        |

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|----|--|-----|-----------|
| 73 | Single-Point Velocity Distribution in Turbulence. <i>Physical Review Letters</i> , 1997, 79, 4159-4161.  | 7.8 | 35        |
| 74 | Viscous Instanton for Burgers' Turbulence. <i>International Journal of Modern Physics B</i> , 1997, 11, 3223-3245.                             | 2.0 | 8         |
| 75 | Intermittency of Burgers' Turbulence. <i>Physical Review Letters</i> , 1997, 78, 1452-1455.  | 7.8 | 108       |
| 76 | Nonuniversality of the Scaling Exponents of a Passive Scalar Convected by a Random Flow. <i>Physical Review Letters</i> , 1996, 76, 3707-3710. | 7.8 | 47        |
| 77 | THEORY OF RANDOM ADVECTION IN TWO DIMENSIONS. <i>International Journal of Modern Physics B</i> , 1996, 10, 2273-2309.                          | 2.0 | 4         |