

# Xing-Bin Pan

## List of Publications by Year in descending order

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68  
papers

1,052  
citations

430874

18  
h-index

454955

30  
g-index

69  
all docs

69  
docs citations

69  
times ranked

186  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Singular behavior of least-energy solutions of a semilinear Neumann problem involving critical Sobolev exponents. <i>Duke Mathematical Journal</i> , 1992, 67, 1.                       | 1.5 | 99        |
| 2  | Estimates of the upper critical field for the Ginzburg-Landau equations of superconductivity. <i>Physica D: Nonlinear Phenomena</i> , 1999, 127, 73-104.                                | 2.8 | 80        |
| 3  | Eigenvalue problems of Ginzburg-Landau operator in bounded domains. <i>Journal of Mathematical Physics</i> , 1999, 40, 2647-2670.   | 1.1 | 66        |
| 4  | Surface Nucleation of Superconductivity in 3-Dimensions. <i>Journal of Differential Equations</i> , 2000, 168, 386-452.   | 2.2 | 62        |
| 5  | Surface Superconductivity in Applied Magnetic Fields Above $H_C 2$ . <i>Communications in Mathematical Physics</i> , 2002, 228, 327-370.  | 2.2 | 56        |
| 6  | Upper critical field and location of surface nucleation of superconductivity. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2003, 20, 145-181.                 | 1.4 | 47        |
| 7  | Schrödinger operators with non-degenerately vanishing magnetic fields in bounded domains. <i>Transactions of the American Mathematical Society</i> , 2002, 354, 4201-4227.              | 0.9 | 42        |
| 8  | Gauge Invariant Eigenvalue Problems in $\mathbb{R}^n$ and in $\mathbb{R}^n_+$ . <i>Transactions of the American Mathematical Society</i> , 1999, 352, 1247-1276.                        | 0.9 | 36        |
| 9  | Positive solutions of super-critical elliptic equations and asymptotics. <i>Communications in Partial Differential Equations</i> , 1993, 18, 977-1019.                                  | 2.2 | 34        |
| 10 | Nucleation of Instability of the Meissner State of 3-Dimensional Superconductors. <i>Communications in Mathematical Physics</i> , 2007, 276, 571-610.                                   | 2.2 | 30        |
| 11 | Upper critical field for superconductors with edges and corners. <i>Calculus of Variations and Partial Differential Equations</i> , 2002, 14, 447-482.                                  | 1.7 | 28        |
| 12 | Surface superconductivity in 3 dimensions. <i>Transactions of the American Mathematical Society</i> , 2004, 356, 3899-3937.   | 0.9 | 25        |
| 13 | Landau-de Gennes Model of Liquid Crystals and Critical Wave Number. <i>Communications in Mathematical Physics</i> , 2003, 239, 343-382.   | 2.2 | 24        |
| 14 | Blow-up behavior of ground states of semilinear elliptic equations in $\mathbb{R}^n$ involving critical Sobolev exponents. <i>Journal of Differential Equations</i> , 1992, 99, 78-107. | 2.2 | 22        |
| 15 | Singular ground states of semilinear elliptic equations via invariant manifold theory. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 1993, 20, 1279-1302.             | 1.1 | 20        |
| 16 | On a quasilinear system involving the operator curl. <i>Calculus of Variations and Partial Differential Equations</i> , 2009, 36, 317-342.  | 1.7 | 19        |
| 17 | Phase transition for potentials of high-dimensional wells. <i>Communications on Pure and Applied Mathematics</i> , 2012, 65, 833-888.   | 3.1 | 19        |
| 18 | Ginzburg-Landau Equation with DeGennes Boundary Condition. <i>Journal of Differential Equations</i> , 1996, 129, 136-165.   | 2.2 | 18        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Superconductivity Near the Normal State Under the Action of Electric Currents and Induced Magnetic Fields in $\mathbb{R}^2$ . Communications in Mathematical Physics, 2010, 300, 147-184.  | 2.2 | 18        |
| 20 | On an elliptic equation related to the blow-up phenomenon in the nonlinear Schrödinger equation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1993, 123, 763-782.   | 1.2 | 15        |
| 21 | Condensation of least-energy solutions: The effect of boundary conditions. Nonlinear Analysis: Theory, Methods & Applications, 1995, 24, 195-222.  | 1.1 | 15        |
| 22 | Existence and regularity of solutions to quasilinear systems of Maxwell type and Maxwell-Stokes type. Calculus of Variations and Partial Differential Equations, 2016, 55, 1.  | 1.7 | 15        |
| 23 | Singular solutions of the elliptic equation $\hat{\Gamma}u + u^p = 0$ . Annali Di Matematica Pura Ed Applicata, 1994, 166, 203-225.  | 1.0 | 14        |
| 24 | On a Problem Related to Vortex Nucleation of Superconductivity. Journal of Differential Equations, 2002, 182, 141-168.   | 2.2 | 14        |
| 25 | Minimizing curl in a multiconnected domain. Journal of Mathematical Physics, 2009, 50, .   | 1.1 | 14        |
| 26 | Asymptotics of minimizers of variational problems involving curl functional. Journal of Mathematical Physics, 2000, 41, 5033-5063.   | 1.1 | 13        |
| 27 | Yamabe equations on half-spaces. Nonlinear Analysis: Theory, Methods & Applications, 1999, 37, 161-186.  | 1.1 | 12        |
| 28 | Superconductivity near the normal state in a half-plane under the action of a perpendicular electric current and an induced magnetic field. Transactions of the American Mathematical Society, 2012, 365, 1183-1217.                           | 0.9 | 11        |
| 29 | Semilinear Neumann problem in exterior domains. Nonlinear Analysis: Theory, Methods & Applications, 1998, 31, 791-821.   | 1.1 | 10        |
| 30 | Superconductivity near critical temperature. Journal of Mathematical Physics, 2003, 44, 2639.  | 1.1 | 10        |
| 31 | Regularity of weak solutions to nonlinear Maxwell systems. Journal of Mathematical Physics, 2015, 56, .  | 1.1 | 10        |
| 32 | Reduced Landau-de Gennes functional and surface smectic state of liquid crystals. Journal of Functional Analysis, 2008, 255, 3008-3069.  | 1.4 | 9         |
| 33 | On a quasilinear system arising in the theory of superconductivity. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2011, 141, 397-407.  | 1.2 | 9         |
| 34 | Superconductivity near the Normal State in A Half-Plane under the Action of A Perpendicular Electric Current and an Induced Magnetic Field, Part II: The Large Conductivity Limit. SIAM Journal on Mathematical Analysis, 2012, 44, 3671-3733. | 1.9 | 9         |
| 35 | Functionals with Operator Curl in an Extended Magnetostatic Born-Infeld Model. SIAM Journal on Mathematical Analysis, 2013, 45, 2253-2284.   | 1.9 | 9         |
| 36 | Superconductivity and the Aharonov-Bohm effect. Comptes Rendus Mathematique, 2019, 357, 216-220.   | 0.3 | 8         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Variational and operator methods for Maxwell-Stokes system. <i>Discrete and Continuous Dynamical Systems</i> , 2020, 40, 3909-3955.                              | 0.9 | 8         |
| 38 | Superconducting Films in Perpendicular Fields and the Effect of the de Gennes Parameter. <i>SIAM Journal on Mathematical Analysis</i> , 2003, 34, 957-991.       | 1.9 | 7         |
| 39 | Landau-de Gennes Model of Liquid Crystals with Small Ginzburg-Landau Parameter. <i>SIAM Journal on Mathematical Analysis</i> , 2006, 37, 1616-1648.              | 1.9 | 6         |
| 40 | Asymptotics of solutions of a quasilinear system involving curl. <i>Journal of Mathematical Physics</i> , 2011, 52, .  | 1.1 | 6         |
| 41 | Oscillatory patterns in the Ginzburg-Landau model driven by the Aharonov-Bohm potential. <i>Journal of Functional Analysis</i> , 2020, 279, 108718.              | 1.4 | 6         |
| 42 | An extended magnetostatic Born-Infeld model with a concave lower order term. <i>Journal of Mathematical Physics</i> , 2013, 54, .                                | 1.1 | 5         |
| 43 | Meissner states of type II superconductors. <i>Journal of Elliptic and Parabolic Equations</i> , 2018, 4, 441-523.   | 0.9 | 5         |
| 44 | The general magneto-static model and Maxwell-Stokes system with topological parameters. <i>Journal of Differential Equations</i> , 2021, 270, 1079-1137.         | 2.2 | 5         |
| 45 | Least Energy Solutions of Semilinear Neumann Problems and Asymptotics. <i>Journal of Mathematical Analysis and Applications</i> , 1996, 201, 532-554.            | 1.0 | 4         |
| 46 | Critical Elastic Coefficient of Liquid Crystals and Hysteresis. <i>Communications in Mathematical Physics</i> , 2008, 280, 77-121.                               | 2.2 | 4         |
| 47 | Mixed Normal-Superconducting States in the Presence of Strong Electric Currents. <i>Archive for Rational Mechanics and Analysis</i> , 2017, 223, 419-462.        | 2.4 | 4         |
| 48 | Quasilinear systems involving curl. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 2018, 148, 243-279.                            | 1.2 | 4         |
| 49 | Concentration Behavior and Lattice Structure of 3D Surface Superconductivity in the Half Space. <i>Mathematical Physics Analysis and Geometry</i> , 2019, 22, 1. | 1.0 | 4         |
| 50 | Existence of singular solutions of semi-linear elliptic equation in $\mathbb{R}^n$ . <i>Journal of Differential Equations</i> , 1991, 94, 191-203.               | 2.2 | 3         |
| 51 | Nodal sets of solutions of equations involving magnetic Schrödinger operator in three dimensions. <i>Journal of Mathematical Physics</i> , 2007, 48, 053521.     | 1.1 | 3         |
| 52 | Partial Sobolev spaces and anisotropic smectic liquid crystals. <i>Calculus of Variations and Partial Differential Equations</i> , 2014, 51, 963-998.            | 1.7 | 3         |
| 53 | Directional curl spaces and applications to the Meissner states of anisotropic superconductors. <i>Journal of Mathematical Physics</i> , 2017, 58, .             | 1.1 | 3         |
| 54 | Existence of surface smectic states of liquid crystals. <i>Journal of Functional Analysis</i> , 2018, 274, 900-958.  | 1.4 | 3         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Maxwell's Stokes system with $L^2$ boundary data and Div-Curl system with potential. SN Partial Differential Equations and Applications, 2020, 1, 1.                  | 0.6 | 3         |
| 56 | Anisotropic nematic liquid crystals in an applied magnetic field. Nonlinearity, 2020, 33, 2035-2076.  | 1.4 | 3         |
| 57 | Div-Curl System with Potential and Maxwell's Stokes System with Natural Boundary Condition. Journal of Dynamics and Differential Equations, 2022, 34, 1769-1821.      | 1.9 | 3         |
| 58 | Ginzburg-Landau system and surface nucleation of superconductivity. Methods and Applications of Analysis, 2001, 8, 279-300.   | 0.5 | 3         |
| 59 | Existence and regularity of weak solutions for a thermoelectric model. Nonlinearity, 2019, 32, 3342-3366.   | 1.4 | 2         |
| 60 | Singular limit of quasilinear Neumann problems. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1995, 125, 205-223.                             | 1.2 | 1         |
| 61 | An eigenvalue variation problem of magnetic Schrödinger operator in three dimensions. Discrete and Continuous Dynamical Systems, 2009, 24, 933-978.                   | 0.9 | 1         |
| 62 | On a Quasilinear Parabolic Curl System Motivated by Time Evolution of Meissner States of Superconductors. SIAM Journal on Mathematical Analysis, 2021, 53, 6471-6516. | 1.9 | 1         |
| 63 | Professor Dajun Guo: a true mathematician and educator. SN Partial Differential Equations and Applications, 2020, 1, 1.   | 0.6 | 0         |
| 64 | Editorial of the special issue for the 70th birthday of Michel Chipot. Journal of Elliptic and Parabolic Equations, 2020, 6, 1-3.                                     | 0.9 | 0         |
| 65 | Singular limits of anisotropic Ginzburg-Landau functional. Journal of Elliptic and Parabolic Equations, 2020, 6, 27-54.   | 0.9 | 0         |
| 66 | Long time behavior and field-induced instabilities of smectic liquid crystals. Journal of Functional Analysis, 2021, 281, 109036.                                     | 1.4 | 0         |
| 67 | Regularity of a parabolic system involving curl. Journal of Elliptic and Parabolic Equations, 2021, 7, 923-944.   | 0.9 | 0         |
| 68 | GINZBURG-LANDAU SYSTEM AND SUPERCONDUCTIVITY NEAR CRITICAL TEMPERATURE. , 2002, , .   |     | 0         |