

Personnel Information: Born on March 27, 1968, P.R. China

Nationality: Chinese, HKSAR

Webpage: www.math.ubc.ca/~jcwei

Affiliation: Department of Mathematics, University of British Columbia, Vancouver, Canada/Department of Mathematics, Chinese University of Hong Kong, Shatin, NT, Hong Kong

Degrees: Ph.D. Univ. of Minnesota, Sept. 1990- Aug. 1994; B.S. Wuhan Univ., Aug. 1985- Jul. 1989.

Research Area: Nonlinear Partial Differential Equations, Concentration Phenomenon in Nonlinear PDEs and Elliptic Systems, Singular Perturbation Problems, Applied Analysis, Prescribing Curvature Problems, Higher-order Conformal Invariant Equations; Reaction-Diffusion Systems, Pattern Formation, Mathematical Biology, Phase-transition in Material Sciences, Di-block and Triblock Copolymer Problems

Awards and Honors: ICCM Distinguished Paper Award (2025), Global Stem Scholar (2024), Best Paper Award of Science in China (2023), Jeffery-Williams Award of Canadian Mathematical Society (2020); Simons Fellow (2020); Fellow of Royal Society of Canada (2019); Invited Speaker at International Congress of Mathematicians 2014; Canada Research Chair Tier I 2013; NSERC Accelerator Award 2013; Morningside Silver Medal, International Congress of Chinese Mathematicians 2010; Inclusion in ISIHighlyCited.com, 2010;Croucher Senior Fellowship, 2005-2006; First Class Award of Natural Science 2010, Ministry of Education of China;Research Excellence Award, Chinese University of HK, 2010;Young Researcher Award, 2005, Chinese Univ. of HK;Outstanding Thesis Award, University of Minnesota, 1994

Experiences • Choh-Ming Li Professor in Mathematics, Chinese University of Hong Kong, September 2024-present; Canada Research Chair Professor in Mathematics, University of British Columbia, October 2013-August 2024; Wei Lun Professor of Mathematics, Chinese University of Hong Kong, October 2011-July 2015; Chair Professor, Chinese University of Hong Kong, August 2009-Sept. 2011; Professor, Chinese Univ. of HK, Aug. 2003-July 2009; Associate Professor, Chinese Univ. of HK, Sept. 1999-Jul. 2003; Assistant Professor, Chinese Univ. of HK, Sept.1995-Aug. 1999;Postdoctoral Fellow, SISSA, Italy, September, 1994-August, 1995

Editorials: Co-Editor-in-Chief of **Journal of Differential Equations**, Co-Managing Editor for **DCDS-A**; Managing Editor for **Methods of Analysis and Applications**; Editor for **Journal of Functional Analysis**; Editor for **Comm. Pure Appl. Anal.**; Editor for **Differential and Integral Equations**; Associate Editor for **IMA Journal of Applied Mathematics**; Associate Editor for **Canadian Journal of Mathematics**; Editor for **Comm. Contemp. Math.**

Committee: NSF review panel 2015;NSF review panel 2014; AARMS Scientific Committee; PIMS Scientific Review Panel;Fields Scientific Review Panel

10 Representative Publications

[1] (with Manuel del Pino and Juan Davila) Singularity formation for the two-dimensional harmonic map flow into S^2 **Inventiones Mathematicae** 219 (2020), no.2, 345-466.

[2] (with Kelei Wang) Finite Morse index implies finite ends. **Comm. Pure Appl. Math.** 72(2019),5, 1044-1119

[3] (with Chang-Shou Lin and Dong Ye) Classification and nondegeneracy of $SU(n+1)$ Toda system with singular sources. **Inventiones Mathematicae** 190(2012), no.1, 169-207.

[4] T. Kolokolnikov and J. Wei, Pattern formation in a reaction-diffusion system with space-dependent feed rate **SIAM Review** 60 (2018), no. 3, 626-645.

[5] Xiaofeng Ren and J. Wei, A double bubble assembly as a new phase of a ternary inhibitory system **Arch Rat Mech Anal** 215(2015), no.3, 967-1034.

[6] F. Ting, Multi-vortex non-radial solutions to the magnetic Ginzburg-Landau equations **Comm. Math. Phys.** Volume 317, Issue 1 (2013), Page 69-97

[7] (with M. del Pino and M. Kowalczyk) On De Giorgi Conjecture in Dimensions $N \geq 9$. **Annals of Mathematics** 174 (2011), no.3, 1485-1569.

[8] D. Iron, M.J. Ward and J. Wei, The stability of spike solutions to the one-dimensional Gierer-Meinhardt model, **Physica D.: Nonlinear Phenomena** 150 (2001), no. 1-2, 25-62.

[9] J. Wei, On single interior spike solutions of Gierer-Meinhardt system: uniqueness, spectrum estimates, **Europ. J. Appl. Math.** 10(1999), 353-378.

[10] W.-M. Ni and J. Wei, On the location and profile of spike-layer:

solutions to singularly perturbed semilinear Dirichlet problems, **Comm. Pure Appl. Math.** 48(1995), 723-761.

Total publications in refereed journals: 525

Total number of citations (as of AMS MathScinet Feb 2025): 14205

Total number of citations (as of Google Scholar Feb 2025): 22230

H-index (as of Google Scholar Feb 2025): 75