

Curriculum Vitae: Buyang Li

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Education

09/2009 – 08/2012 Ph.D. in Applied Mathematics, City University of Hong Kong
 09/2007 – 08/2009 M.Phil. in Applied Mathematics, City University of Hong Kong
 09/2006 – 08/2007 M.Sc. in Applied Mathematics, City University of Hong Kong
 09/2001 – 07/2005 B.Sc. in Mathematics, Shandong University

Academic Positions

07/2023 – present Professor, The Hong Kong Polytechnic University
 07/2020 – 06/2023 Associate Professor, The Hong Kong Polytechnic University
 06/2016 – 06/2020 Assistant Professor, The Hong Kong Polytechnic University
 06/2015 – 05/2016 Alexander von Humboldt Research Fellow, Universität Tübingen
 12/2012 – 05/2016 Assistant/Associate Professor, Nanjing University
 09/2012 – 08/2013 Postdoctoral/Research Fellow, City University of Hong Kong

Research Interests

Applied, numerical and computational mathematics for the following problems:

- Geometric evolution equations, mean curvature flow, Willmore flow, PDEs on surfaces
- Low-regularity integrators for nonlinear dispersive equations with rough initial data
- Incompressible Navier–Stokes equations, two-phase flow, fluid-structure interactions
- Arbitrary Lagrangian–Eulerian method, evolving finite elements, shape optimization
- Maximum-norm stability and error estimates of finite element methods in nonsmooth domains
- Maximal L^p -regularity of time discretization and finite element methods for parabolic equations
- High-order approximations to singular solutions of fractional evolution equations
- Computation of the Ginzburg–Landau superconductivity equations in nonsmooth domains

Professional Recognitions (Editorship and Awards)

- Associate Editor, IMA Journal of Numerical Analysis, 2/2023 – present.
- Associate Editor, Mathematics of Computation, 2/2022 – present.
- Associate Editor, SIAM Journal on Numerical Analysis, 1/2022 – present.
- The Hong Kong Mathematical Society Young Scholars Award 2022.
 (For fundamental contributions to stability analysis and error estimates of finite element and other numerical methods for solving partial differential equations.)
- Alexander von Humboldt Research Fellowship, 2015–2016.
- Best Paper Award for Young Scholars 2013, The Chinese Society for Computational Mathematics.

External Research Grants

- 6 General Research Funds (PI) from Hong Kong Research Grants Council
- Collaborative Research Fund (PI), 2021–2023: For the knowledge transfer to Huawei Technologies Co, Ltd. In this project, I develop a new cutting-edge computational approach for the development of high-frequency simulations of vehicle cockpit sound fields for Huawei’s automotive production project.
- Germany/Hong Kong Joint Research Scheme (PI), 2017–2018.
- NSFC Key Program (Co-I), 2023–2027.
- NSFC General Program (Co-I), 2021–2024.
- NSFC Young Scientists Fund (PI), 2014–2016.

Conference/Workshop/Mini-symposium/Seminar Talks and Organizations:

Over 50 talks in conferences/workshops/seminars.

Referee for organizations:

Dutch Research Council

National Fund for Scientific and Technological Development (FONDECYT, Chile)

Institutional Responsibilities at The Hong Kong Polytechnic University:

Deputy Programme Leader of Departmental Postgraduate Programme Committee

Member of the Departmental Research Committee

Member of the Departmental PhD Thesis Assessment Committee

Supervision of PhD Students and Postdocs:

5 PhD Students (3 on-going) and 8 Postdocs (7 on-going).

Teaching:

About 10 different courses at The Hong Kong Polytechnic University and Nanjing University, and summer school lectures at other universities, on numerical methods for partial differential equations, convolution operators, exponential integrators, linear algebra, calculus, ODEs, and so on.