Cu Cui

Personal Data

Place and Date of Birth:	China | 18 June 1996
Address:	Sun Yat-Sen University, Guangzhou 510006, P. R. China.
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Education

July 2021 **Sun Yat-sen University (SYSU)**
Master of Science in Computational Mathematics
Finite Element Method (FEM), Extended/Generalized FEM (XFEM/GFEM) |
Advisor: Prof. Qinghui Zhang
GPA: 90/100 | Detailed List of Exams

July 2018 **China University of Petroleum - Beijing (CUPB)**
Undergraduate Degree in Mathematics and Applied Mathematics
Thesis: "Study on Thermal Energy Equation with Finite Element Method" |
Advisor: Liqun Wang
GPA: 3.73/4.00

Honors and Awards

Sept. 2020 First prize of university scholarship. The top 10% student in the Department of Mathematics
July 2018 Excellent Graduate in Beijing. Ranked 2nd in the Department of Mathematics
July 2018 Outstanding Undergraduate Thesis. Ranked 1st in the Department of Mathematics
Sept. 2016 Excellent Student Cadre, in the Department of Mathematics (CHY 1,000)
Sept. 2015 China Petroleum Scholarship. Ranked 1st in the Department of Mathematics (CHY 6,000)
May 2015 3rd Place. China University of Petroleum(Beijing) "Petroleum Cup" football match

Publications

C. Cui, Q. Zhang. Stable generalized finite element methods for elasticity crack problems. *Int J Numer Methods Eng*. 2020; 121: 3066-3082. https://doi.org/10.1002/nme.6347

Q. Zhang, C. Cui. Condensed generalized finite element method. *Numer Methods Partial Differential Eq*. 2020;1–22. https://doi.org/10.1002/num.22616

Research Interests

- Finite Element Method (FEM), Extended/Generalized FEM (XFEM/GFEM)
- Computational Science and Engineering

Languages

English: B2 level
Chinese: Native language

Computer Skills

Basic Knowledge:	MPI, Doxygen, Linux, Python(Pytorch), PETSc, deal.II
Intermediate Knowledge:	C/C++, Matlab, LaTeX

Summer and short courses

May 21 2018 May 25 2018	5-day course Finite element methods in scientific computing. Beijing *Wolfgang Bangerth* • An introduction to the finite element method. • Brief introduction to deal.II. • Beyond computing: Workflows in scientific computing.
Jul 23 2019 Aug 11 2019	The 3rd "Summer School of Numerical Methods and Theory of Partial Differential Equations". Chengdu *Xiaobing Feng, ChiWang Shu, Jie Shen* • Finite Element Method and its Applications. • Discontinuous Galerkin Methods for Convection Dominated PDEs. • Numerical methods for Navier-Stokes equations and phase-field models.
Jul 6 2020 Jul 10 2020	Finite Element and Deep Neural Networks (Online) *Jinchao Xu* • Finite Element Method and Multigrid method in Convolution. • Finite Element and Deep Neural Network Functions. • Approximation Properties of DNN..

Extracurricular Activities

May 2016-Jun 2017	China University of Petroleum (Beijing), Faculty of Science, Party branch "Red 1 + 1" co-construction activity. Beijing *CORE MEMBER* • Help people with disabilities in rehabilitation training. • Dance learning, Poetry readings, Writing calligraphy • Visit the Memorial Hall of the First Party Branch of the Communist Party of China in JingXiShan. • The event won the third prize of Beijing.
Jun 2016-Jul 2016	Water resources protection social practice activity. Tianjin-Yueyang *CORE MEMBER* • Held environmental protection science lectures. • The title of advanced individual in social practice. • Outstanding Individuals in Social Practice Activities.

Links

ResearchGate • Google Scholar • GitHub • Homepage
Supervisor: Prof. Qinghui Zhang • Prof. Liqun Wang

Master of Science in Computational Mathematics

Grades

Exam	Grade	Credit Hrs
Functional Analysis	95	4
Modern Partial Differential Equations	97	4
Optimization Theory and Methods	85	4
Numerical Approximation Theory	94	4
Algorithm Design and its Complexity	95	4
Research on the Theory and Practice of Socialism with Chinese Characteristic	87	2
Marxism and the Methodology of Social Science	85	1
Artificial Intelligence and Neural Networks	92	4
English (Exemption)	80	5
	Total	32
	Gpa	**90**