Biographical Sketch
Shue-Sum Chow
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Education

University of Canterbury	Christchurch, New Zealand	Mathematics	B.Sc.(Hons), 1979
Australian National University	Canberra, ACT, Australia	Mathematics	Ph.D., 1983
University of Texas at Austin	Austin, Texas	Computational Math	Post doc 1983-1985

Appointments

- Associate Professor, Dept of Mathematics, Brigham Young University, *1998*–present.
- Senior System Analyst, SOS Computer Systems, Inc., *1995– 1997.*
- Visiting Assistant Professor, Dept of Mathematics, University of Texas of the Permian Basin, *1994– 1995.*
- Visiting Assistant Professor, Dept of Mathematics, University of Colorado at Denver, *1993–94.*
- Senior Lecturer, Dept of Mathematics, City University of Hong Kong, *1990–92.*
- Assistant Professor, Department of Mathematics, University of Wyoming, *1985–90.*

Selected Publications

1. F. Stenger, R. S. Anderssen, S. Chow, Numerical Solutions to Scattering Problems, in preparation.
2. S. Chow and A. Washburn, A shooting like method for nonlinear seepage flow problems, Numerical Algorithms, April 2017, vol. 74, no. 4, pp 951–966.
3. S. Acosta, S. Chow and V. Villamizar, Multifrequency Inverse Source Problem for Elastic Waves, AMS Contemporary Mathematics, Vol 586, pp 1-8, 2013.
4. S. Acosta, S. Chow, J. Taylor and V. Villamizar, The Multifrequency Inverse Problem in Acoustics, Inverse Problems, 2013.
5. Finite element approximations of a glaciology problem, S.-S. Chow, G.F. Carey, M.L. Anderson, Mathematical Modelling and Numerical Analysis (M2AN), vol. 38, no. 5, pp. 741–756, 2004 .
6. Numerical Approximation of Generalized Newtonian Fluids using Powell-Sabin-Heindl Elements: I. Theoretical estimates, S.-S. Chow, G.F. Carey, International Journal of Numerical Methods in Fluids, vol. 41, pp. 1085–1118, 2003.

7. S.-S. Chow, Finite Element Error Estimates for a Blast Furnace Gas Flow Problem, *SIAM Journal of Numerical Analysis,* Vol. 29, n 3, pg 769, June 1992.

Synergistic Activities

Some of the to be published research on inverse problem was used for consulting work for a Salt Lake City company making ultrasound based breast cancer detection machines.

Some of my earlier work on numerical analysis of elliptic problems with gradient nonlinearity is still cited by people working in related problems.

I have been active in mentoring undergraduate students with several of them now working on their postgraduate degree in mathematics and related area.

Collaborators

Frank Stenger	University of Utah
Vianey Villamizar	Brigham Young University
Sebastian Acosta	Baylor College of Medicine
Raytcho Lazarov	Texas A&M University
Bob Anderssen	CSIRO, Australia
Vladimir Miklyukov	Volgograd State University
Shagi-di Shih	University of Wyoming
Graham Carey	Deceased/ U Texas at Austin

Collaborators

Ph.D.: Drs Robert S. Anderssen and Frank R. de Hoog (Australian National U.)
Postdoc: Graham F. Carey (U.Texas Austin)

University of Texas at Austin graduate student and postdoc collaborators: Roy Stogner, Bill Barth, Ben Kirk, A. Pehlivanov, Michael Anderson

BYU Undergraduate students mentored: Nozomu Okudo, Bradford Tuckfield, Kyle Francis, Kevin Perkins, Warren Crutcher, Ryan Funk, Mark Hendricks, Ammon Washburn, Yunwoo Jang, Elise Cope, Steffan Larsen, Young Tai Ahn, Aaron Larsen.