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Education

PURDUE UNIVERSITY Ph.D. in Mathematics Thesis Title: "Convergence of Solutions of Discrete ROF Models" Thesis Adviser: Bradley J. Lucier	Aug. 2008
PEKING UNIVERSITY M.S. in Mathematics	Aug. 2000
PEKING UNIVERSITY B.A. in Mathematics	Jun. 1997

Research Interests

Numerical Analysis, Approximation theory, Calculus of Variations, Optimization, Image processing.

Mathematics Employment and Teaching Experience

2008 - PRESENT POSTDOCTORAL ASSOCIATE AND PART-TIME INSTRUCTOR Courses taught: Calculus for Science and Engineering.	University of Georgia
2005 - 2006 TEACHING SPECIALIST Courses taught: Introduction to Analysis.	University of Minnesota
2000 - 2008 TEACHING ASSISTANT Courses taught: undergraduate courses including Calculus, Differential Equations and Geometry.	Purdue University
1997-2000 TEACHING ASSISTANT Courses taught: Analysis, C computer language.	Peking University

Presentations

A Study on the TV-Lp model for Image Denoising and Deblurring. UGA Applied Math. Seminar. Athens(GA, USA). November, 2010.

The convergence of discrete ROF model for image denoising. PCMI 2010 Summer Session, Research Program in image processing. Park City(UT, USA). July, 2010

Error Bound for Numerical Methods for the ROF Model with Symmetric Discrete TV Operators. UGA Applied Math. Seminar. Athens(GA, USA). September, 2009.

The convergence of a central difference discrete ROF model for image denoising. The IMACS WORLD CONGRESS on Computational and Applied Mathematics and Applications in Science and Engineering. Athens(GA, USA). August, 2009

The Convergence of a Central-difference Discretization of Rudin-Osher-Fatemi Model for Image Denoising. (Poster Presented by Professor Ming-Jun Lai) International Conference on Scale Space Methods and Variational Methods in Computer Vision(SSVM). Voss(Norway). June, 2009

Error Bound for Numerical Methods for the ROF Image Smoothing Model with Symmetric Discrete TV Operators. (Poster Presentation) Georgia Scientific Computing Symposium. Atlanta(GA, USA). February, 2009.

Variational Models for Image Restoration. UGA VIGRE Seminar. Athens(GA, USA). September, 2008.

The Rudin-Osher-Fatemi Image Denoising Model and Some Error Analysis on the Numerical Results II. UGA Applied Math. Seminar. Athens(GA, USA). September, 2008.

The Rudin-Osher-Fatemi Image Denoising Model and Some Error Analysis on the Numerical Results I. UGA Applied Math. Seminar. Athens(GA, USA). September, 2008.

Error Bound for Numerical Methods for the ROF Image Smoothing Model, (Poster Presentation) SIAM Conference on Imaging Science (IS08). San Diego(CA, USA). July, 2008.

Publications M.-J. Lai, B. Lucier, and J. Wang, The convergence of a central-difference discretization of Rudin-Osher-Fatemi model for image denoising, in *Scale Space and Variational Methods in Computer Vision*, X.-C.-Tai et al., eds., *Lecture Notes in Computer Science*, Vol. 5567, Springer Berlin, Heidelberg, 2009, pp. 514–526.(Peer reviewed)

J. Wang and B. Lucier, Error bounds for finite-difference methods for Rudin-Osher-Fatemi image smoothing. *SIAM J. Numer. Anal.*, to appear. UCLA Cam Technical Report 09-70.

M.-J. Lai, J. Wang, An Unconstrained ℓ_q Minimization with $0 < q \leq 1$ for Sparse Solution of Under-determined Linear Systems, *SIAM J. Optim*, Volume 21, Issue 1, pp. 82-101(2011).

Paper submitted or in preparation

Q. Hong, M.-J. Lai, J. Wang, Convergence Analysis of a Finite Difference Scheme for TV Gradient Flow, submitted, 2010.

Q. Hong, M.-J. Lai, J. Wang, A Study on the TV-Lp model for Image Denoising and Deblurring. in preparation.

Honors

Graduate Scholarship at Purdue University 2000 - 2008
JiuZhang Math Scholarship at Peking University in 1995

References

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