

# *Mini P. Kurian*

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## RESEARCH INTERESTS

Computational Neuroscience, Mathematical Biology

## EDUCATION

<b>PhD Mathematics</b> , Arizona State University, Tempe, AZ, USA	Aug 2004 - Present
<b>MS Physics</b> , University of Massachusetts, Amherst, MA, USA	Aug 2001 - Jul 2004
<b>MSc Physics</b> , Indian Institute of Technology - Madras, Chennai, India	Jul 1999 - Jul 2001
<b>BSc Physics</b> , Mahatma Gandhi University, Kottayam, India	Jun 1996 - Jun 1999

## ADDITIONAL TRAINING

- Methods in Computational Neuroscience Course, Marine Biology Lab, Woods Hole, MA, 2006
- Okinawa Computational Neuroscience Course, OIST, Japan, 2006
- NCBI Training: A Field Guide to GenBank and NCBI Biological Resources, Tempe, AZ, 2006

## RESEARCH PROJECTS

- |   |                     |
|---|---------------------|
| • Modeling of Motor Neuron Plasticity after Spinal Cord Injury, ASU | Dec 2005 - Present  |
| • Computational Modeling of Circadian Rhythms, UMass, Amherst       | Sep 2003 - Aug 2004 |
| • Bacteriolytic Therapy of Cancer Cells, UMass, Amherst             | Sep 2003 - Aug 2004 |
| • dE/dx measurements in BABAR Drift Chamber, UMass, Amherst         | May 2002 - Jan 2003 |

## SOFTWARE ABILITIES

- Operating Systems: UNIX, LINUX, Windows
- Programming languages : C++, Python, ROOT, BASIC
- Application packages : Matlab, Mathematica, Maple, XPP, Neuron, R, Latex

## WORK EXPERIENCE

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|---|---------------------|
| • Graduate Teaching Associate, Department of Mathematics, ASU | Aug 2004 - Present  |
| • Graduate Student Organizing Coordinator, UMass, Amherst     | Sep 2003 - May 2004 |
| • Teaching/Research Assistant, UMass, Amherst                 | Sep 2001 - May 2003 |
| • CNS Workshop Co-organizer, "Neuro - Machine Interfaces"     | Jul 2007            |
| • Grant Reviewer, ASU   | Aug 2004 - Aug 2007 |

## HONORS AND AWARDS

- AWM Workshop Travel Award, Denver, CO, SIAM 2009
- Arthur Quinton Outstanding Teaching Assistant Award, UMass, Amherst, 2001-2002
- University Grant Commission Junior Research Fellowship, India, 2000
- IIT Madras Merit Scholarship, IIT Madras, Chennai, India, 1999-2001
- Paper prize, Xth All India Essay Contest in Nuclear Science and Technology, DAE, India, 1998
- 46th in National Science Talent Examination, India, 1995

## PUBLICATIONS

- M. Kurian, S. Crook, and R. Jung, "Motoneuron model of self-sustained firing after spinal cord injury", 2009 (Paper - In Review).
- M. Kurian, and S. Crook, Modeling motoneuron excitability following spinal cord injury, Society for Neuroscience Abstracts (76.6), 2007 (SFN conference abstract).
- M. Kurian, and S. Crook, Two-compartment models of spasticity in spinal motor neurons following spinal cord injury, BMC Neuroscience 8(Suppl 2): 101, 2007 (CNS conference abstract).

## PRESENTATIONS

- M. Kurian, S. Crook, and R. Jung, "Two compartment motoneuron model to study self sustained firing after spinal cord injury", *SIAM Annual Meeting*, Denver, CO, USA, 2009 (Poster format).
- M. Kurian, S. Crook, and B. Hillen, Modeling motoneurons after spinal cord injury in acute and chronic stages, Okinawa Computational Neuroscience Course, Japan, 2006 (Poster format).

## PROFESSIONAL ASSOCIATIONS

AMS, AWM and SIAM Student Membership