

## BIOGRAPHICAL SKETCH

Name: Zhisheng Shuai

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Position Title: Assistant Professor

Department of Mathematics

University of Central Florida

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### Education

Ph.D. Applied Mathematics, Department of Mathematics, University of Alberta, Canada, 2010

M.Sc. Applied Mathematics, Department of Mathematics, Northeast Normal University, China, 2004

B.Sc. Mathematics, Department of Mathematics, Northeast Normal University, China, 2001

### Professional Experience

Assistant Professor (tenure-track), University of Central Florida, Orlando, FL, 2012 – present

NSERC Postdoctoral Fellow, Mathematical Epidemiology, University of Victoria, Canada, 2010-2012

### Selected Honors and Awards

- Simons Foundation Collaboration Grant, 2015 – 2020
- NSERC Postdoctoral Fellowship, 2010 – 2012
- Chinese Government Award for Outstanding Self-Financed Students Abroad, 2009
- Izaak Walton Killam Memorial Scholarship, University of Alberta, 2007 – 2009

**Selected Publications** (total publications = 27; total citations = 881, as of Google Scholar on Jan 4, 2016)

- J.H. Tien, Z. Shuai, M.C. Eisenberg, and P. van den Driessche. *Disease invasion on community networks with environmental pathogen movement*. **Journal of Mathematical Biology**, 70 (2015), 1065-1092.
- C.M. Saad-Roy, Z. Shuai, and P. van den Driessche. *Models of Bovine Babesiosis including juvenile cattle*. **Bulletin of Mathematical Biology**, 77 (2015), 514-547.
- J.W. Moon, Z. Shuai and P. van den Driessche. *Walks and cycles on a digraph with application to population dynamics*, **Linear Algebra and its Applications**, 451 (2014), 182-196.
- Z. Shuai and P. van den Driessche. *Global stability of infectious disease models using Lyapunov functions*, **SIAM Journal on Applied Mathematics**, 73 (2013), 1513-1532.
- Z. Shuai, J.A.P. Heesterbeek and P. van den Driessche. *Extending the type reproduction number to infectious disease control targeting contacts between types*, **Journal of Mathematical Biology**, 67 (2013), 1067-1082.
- H. Guo, M.Y. Li and Z. Shuai. *Global dynamics of a general class of multi-stage models for infectious disease*, **SIAM Journal on Applied Mathematics**, 72 (2012), 261-279.
- Z. Shuai and P. van den Driessche. *Global dynamics of cholera models with differential infectivity*, **Mathematical Biosciences**, 234 (2011), 118-126.
- M.Y. Li and Z. Shuai. *Global-stability problem for coupled systems of differential equations on networks*, **Journal of Differential Equations**, 248 (2010), 1-20.
- H. Guo, M.Y. Li and Z. Shuai. *A graph-theoretic approach to the method of global Lyapunov functions*, **Proceedings of the American Mathematical Society**, 136 (2008), 2793-2802.

### Selected Professional Services

- Served as a reviewer for 45 different research journals (90 reviews in total) including *SIAM J. Appl. Math.*, *J. Dynam. Diff. Eqns.*, *J. Nonlinear Sciences*, *Physics D*, *J. Theoretical Biology*, *Math. Biosciences*, *Ecological Complexity*, and *IEEE Transactions on Automatic Control*.
- Co-organizer for minisymposia, special sessions and workshops:
  - BIRS Workshop “Cholera Dynamics on Community Networks”, Canada, August 4-11, 2013.
  - Minisymposium, SIAM Southeastern Atlantic Section Conference, Melbourne, FL, March 28-30, 2014.
  - Minisymposium, SIAM Conference on Life Sciences, Charlotte, NC, August 4-7, 2014.
  - Special Session, AMS Southeastern Sectional Meeting, Huntsville, AL, March 27-29, 2015.
  - Minisymposium, ICIAM 2015, Beijing, China, August 10-14, 2015.