

DR. SAEED AHMAD

CONTACT INFORMATION

Department of Mathematics
University of Malakand
Chakdara Dir Lower
Khyber Pakhtunkhwa Pakistan

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RESEARCH INTERESTS

Dynamical systems, Mathematical Biology, Nonlinear phenomenon in Fluid dynamics.

EDUCATION

Ph.D., School of Mathematical Sciences, University of Nottingham, NG7 2RD, United Kingdom.

- Thesis Title: *Semifluxons in long Josephson junctions with phase-shifts*
- Thesis available online:
eprints.nottingham.ac.uk/12729/
- Adviser: Dr. Hadi Susanto
- Area of Study: Nonlinear systems in Applied Mathematics

M.Sc., University of Peshawar, N-W.F.P Pakistan, 1997

- Real analysis, Complex analysis, Hydrodynamics, Topology, Differential Geometry, Numerical Analysis, Measure Theory and Integrations, Algebra, Number Theory, Dynamics.

B.Sc., University of Peshawar, N-W.F.P Pakistan, 1991

- Mathematics and Physics.

F.Sc., Govt. Degree College Matta Swat, Pakistan, 1989

- Pre-Engineering

PUBLICATIONS

- Saeed Ahmad, Hadi Susanto, and Jonathan A. D. Wattis "Existence and stability analysis of finite $0-\pi-0$ Josephson junctions" *Physical Review B* 80, 064515 (2009).
- Saeed Ahmad, Hadi Susanto, Jonathan A. D. Wattis, Edward Goldobin "Existence and stability analysis of semifluxons in disk-shaped two-dimensional $0-\pi$ Josephson junctions", *Physical Review B* 82, 174504(2010)
- Saeed Ahmad "Semifluxons in $0\pi 0$ infinitely long Josephson junctions", *Physics Letters A*, 379 (2015) 2362-2369.
- Saeed Ahmad, Hadi Susanto, and Jonathan A. D. Wattis "Band-gaps in long Josephson junctions with periodic phase-shifts", Submitted to *Physics Letters A*, (2016).
- Saeed Ahmad, Tahir Khan and Amir Khan "Hopf bifurcation analysis of a delayed epidemic SIR model" Submitted (2016)
- Saeed Ahmad, "Mathematical Modeling for long Josephson junctions with phase-shifts" submitted (2016)

TEACHING EXPERIENCE

Assistant professor in Mathematics, University of Malakand, Chakdara Dir(Lower), Khyber Pakhtunkhwa Pakistan

- May 2013 till date.

Lecturer in Mathematics, University of Malakand, Chakdara Dir(Lower), Khyber Pakhtunkhwa Pakistan

- September 2004 to May 2013

Lecturer in Mathematics, University of Engineering and Technology Peshawar, Khyber Pakhtunkhwa Pakistan.

- March 2004 to September 2004

MATHEMATICAL
EXPERTISE

Real and Complex Analysis, Measure Theory, Calculus and Analytical Geometry, Hydrodynamics, Topology, Differential Geometry, Numerical Analysis, Functional Analysis, Ordinary Differential Equations, Partial Differential Equations, Mathematical Modelling, Dynamical systems, Nonlinear Waves

CURRENT AND
PAST STUDENTS

- Bakht Zaman M. Phil (Completed 2013-2016)
- Fida Hussain M. Phil (Completed 2014-2015)
- Attaullah M. Phil (in progress 2015-2016)
- Naseer Khan M. Phil (in progress 2015-2016)
- Liaqat Shah M. Phil (in progress 2015-2016)
- Murad Ali M. Phil (in progress 2015-2016)

REFERENCES
AVAILABLE TO
CONTACT

Dr. Hadi Susanto (email: hsusanto@essex.ac.uk; Tel: +44 1206 87 2689)

- Associate professor, Department of Mathematical Sciences University of Essex UK ,
- *Dr. Hadi Susanto is my PhD supervisor.*

Dr. Jonathan Wattis (email: Jonathan.Wattis@nottingham.ac.uk; Tel: +44 (0)115-951-3857, Fax: +44 (0)115-951-3837)

- Associate professor and reader in the School of Mathematical Sciences University of Nottingham UK
- *Dr. Jonathan Wattis is my PhD co-supervisor.*