

CURRICULUM VITAE

Name: Bushra Haider

Date of Birth: November 24, 1978

Nationality: Pakistani

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Education:

- Ph.D (Physics), Department of Physics, University of the Punjab, Lahore, Pakistan, (2010).
- MPhil, Department of Physics, University of the Punjab, Lahore, Pakistan, 2006 (82%).
- M.Sc. in Physics, Department of Physics, University of the Punjab, Lahore, Pakistan, 2001 (74%).
- B.Sc. in Physics and Mathematics, Kinnaird College for Women Lahore, University of the Punjab, Lahore, Pakistan, 1998 (69%).
- Matriculation, Divisional Public School, Model Town, Lahore, Lahore board, 1994 (84%).

Scholarships:

- HEC scholarship for Ph.D.
- Merit scholarship for MPhil.
- Merit scholarship for M.Sc.
- Mathematics scholarship for F.Sc.

Publications:

1. B. Haider and M. Hassan, *On algebraic structures in supersymmetric principal chiral model*, Eur.Phys.J.C53 (2008) 627-633.
2. B. Haider and M. Hassan, *The $U(N)$ chiral model and exact multi-solitons*, J. Phys. A Math. Theor 41 (2008) 255202.
3. B. Haider and M. Hassan, *Quasideterminant solutions of an integrable chiral model in two dimensions*, J. Phys. A: Math. Theor. 42 (2009) 355211
4. B. Haider and M. Hassan, *Quasideterminant multisoliton solutions of a supersymmetric chiral field model in two dimensions*, J. Phys. A: Math. Theor. 43 (2010) 035204.
5. B. Haider, M. Hassan and U. Saleem, *Binary Darboux transformation and quasideterminant solutions of the chiral field*, JNMP 18 (2011) 299.
6. B. Haider and M. Hassan, *Binary Darboux transformation for the supersymmetric principal chiral field model*, JNMP 18 (2011) 557.
7. B. Haider and M. Hassan, *Grammian quasi-determinant solutions of the generalized coupled dispersionless integrable system*, Symmetry, Integrability and Geometry: Methods and Applications 8 (2012) 084.
8. Z. Amjad and B. Haider, *Darboux transformations of supersymmetric Heisenberg magnet model*, J.Phys.Commun.2(2018)035019
9. Z. Amjad and B. Haider, *Quasigrammian solutions of generalized SUSY Heisenberg magnet model*, accepted for publication in Theoretical and Mathematical Physics.

Other written work

MPhil dissertation:

Title: R-matrix formalism of integrable field theories.

PhD dissertation:

Title: Aspects of algebraic methods in integrable field theories.

Research Supervision:

MPhil Students

Rashida Parveen	R-matrix formalism of Generalized Heisenberg magnet model	2010
Arifa Mirza	Hirota bilinear formalism and integrability	2011
Aqeela Nazir	Application of Hirota bilinear method to nonlinear schrodinger equation	2011
Hira Sarfraz	Darboux transformation for nonlinear sigma model	2012
Bushra Parveen	Nonlinear sigmamodel and integrability	2012
Shabana Iqbal	Multi-soliton solutions of integrable equations using Darboux transformation	2013
Sumeeta Saeed	Integrability of Short Pulse equations	2014
Iqra Sadiq	Quasideterminant solution of nonlinear Schrödinger equations	2014

Employment:

- Assistant Professor (TTS), Department of Physics, University of the Punjab, Lahore (2010-to date).
- Lecturer, Department of Physics, University of the Punjab, Lahore (2008-2010).
- Teacher & Career Advisor, Beaconhouse School System, Lahore, 2001 – 2004.
- Taught Mathematical Methods of Physics, Msc.I, Department of Physics, University of the Punjab, Lahore, Pakistan (2004).
- Taught Quantum field theory, MPhil, Department of Physics, University of the Punjab, Lahore, Pakistan (2007).