Name : Dr. Rashid Ali

Present Position : Assistant Professor (TTS), Department of Physics,

University of the Punjab, Lahore, Pakistan.

Postgraduate qualification

(i) Ph.D. (2002, theoretical plasma physics) from Centre of Excellence in Solid State Physics, University of the Punjab, Lahore-Pakistan.

- (ii) M.Phil. (1993, with plasma physics), from Quaid-i-Azam University, Islamabad-Pakistan.
- (iii) M.Sc. (1990, with electronics), from University of the Punjab, Lahore-Pakistan.

Research Publications

(1) Modulational stability of coupled helicon-acoustic waves in a piezoelectric semiconductor plasma, <u>J. Phys.: Condens. Matter</u>, 8, 1207 (1996) [Co-Authors: Ghazala Anwar and H. A. Shah].

(2) Helicon solitons in a layered semiconductor plasma via Zakharov equations, <u>J. Phys.:</u> Condens. Matter, 9, 7583 (1997)

[Co-Author: H. A. Shah].

(3) Model for electron heating in the solar wind, <u>Bulletin of Pure and Applied Sciences</u>, 18D, 61, (1999) [Co-Author: H. A. Shah].

(4) Density-wave propagation within layered high-temperature superconducting plasmas, J. Phys.: Condens. Matter, 12, 5857 (2000) [Co-Author: H. A. Shah].

(5) Nonlinear density wave propagation in layered superconducting plasmas, Physica Status Solidi (b), 221, No. 2, 693 (2000) [Co-Author: H. A. Shah].

(6) Parametric interaction in a sinusoidal periodic piezoelectric semiconductor structure, Journal of Natural Science and Mathematics, 47, Nos. 1&2, 1-10 (2007) [Co-Author: Ghazala Anwar].

(7) The magnetostatic surface waves in a layered (Dielectric/Magnetic/Conducting) waveguide structure, Journal of Natural Science and Mathematics, 47, Nos. 1&2, 11-23 (2007)

[Co-Author: Burhan Zamir].

(8) Coupled Alfven-Spin wave in a composite magnetic-semiconducting medium. Chinese Journal of Physics, 47, No. 3, 336 (2009) [Co-Author: Muhammad Najam Shaikh].

(9) Coupled nonlinear waves in a composite magnetic–semiconducting medium. Physics Letters A, 374, 2942 (2010)

[Co-Authors: Muhammad Najam Shaikh, H.A. Shah and Uzma Noureen Chaudhary].

(10) Wave propagation in parallel-plate waveguides filled with nonlinear left-handed Material. Chinese Physics B, Vol. 20, No.1(2011), in Press [Co-Author: Burhan Zamir].

(11) Coupled waves in the periodic composite magnetic-semiconducting media.

Submitted for publication

[Co-Author: Muhammad Najam Shaikh].

Papers Presented in conferences/Symposia

(1) Transverse electric (TE) waves in high-temperature superconducting parallel-plate waveguide filled with a nonlinear medium.

Presented in International Scientific Spring – 2010 (March 01-06), NCP, Islamabad. [Burhan Zamir and Rashid Ali].

Conferences / symposia attended

(a) National.

Several Symposia and National Conferences attended.

(b) International.

- (i) Attended, "Autumn College on Plasma Physics", 1995. At ICTP, Trieste, Italy.
- (ii) Attended, "Autumn College on Plasma Physics", 1997. At ICTP, Trieste, Italy.
- (iii) Attended, "Autumn College on Plasma Physics", 1999. At ICTP, Trieste, Italy.

Projects

- (i) Worked as Research Associate at the Centre of Excellence in Solid State Physics, Punjab University, under the Pakistan Science Foundation Project No. P-PU/PHY(99), from 1 November 1995 30 December 1999 (4 years and 2 months).
- (ii) Worked as Principal Investigator of Pakistan Science Foundation Project No. PSF/Res/P-PU/Phys(131), titled "Nonlinear electromagnetic wave propagation in plasma like media". (from 2006-2009).

Research supervision

M.Phil.: (Supervised 7 students) Saima Nawaz, Jawad Ahmed, Muhammad Asif, Baber Shahzad, Muhammad Najam Shaikh, Burhan Zamir and Muhammad Bilal.

(Under supervision 5 students) Bushra Amjad, Umair Younus, Saira Khatoon, Rafia Perveen and Gulshan Baby.

Ph.D.: Muhammad Najam Shaikh (near completion), Burhan Zamir (writing his synopsis)

Memberships

- (i) Life Member Pakistan Institute of Physics (PIP).
- (ii) Life Member Pakistan Physical Society (PPS), QAU, Islamabad.
- (iii) Life Member Pakistan Society for Semiconductor Science and Technology, QAU, Islamabad.
- (iv) Life Member Khwarzimic Science Society. (http://www.khwarzimic.org).

Scholarships

Awarded scholarship under the auspices of President's Talent Farming Scheme 1987-1989 at M.Sc-I level.

Computer skills

Winword, Mathematica, Matlab etc.