



Title	Dr	First Name	Rachna	Last Name	Joshi	Joshi
Designation		Associate Professor				
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Educational Qualifications

Degree	Institution	Year
Bsc(H) Physics	Maitreyi College, University of Delhi	1993 - 1996
MSc Physics	Dept. of Physics & Astrophysics, University of Delhi	1996 - 1998
PhD Physics	Dept. of Physics & Astrophysics, University of Delhi	1999 - 2002

Career Profile

1998-1999: Assistant Professor, ANDC, University of Delhi.

2000-2003: Assistant Professor, Dyal Singh College, University of Delhi.

2003 – 2011: Assistant Professor, ANDC, University of Delhi.

2012 - Present: Associate Professor, ANDC, University of Delhi

Administrative Assignments

Member Alumni Committee and Sports committee (2018-2020)

Member Alumni Committee and Eco-club (2016-2018)

Teacher-in-charge, Physics department (2014-2016)

Convener Garden Committee (2012 - 2014)

Member Canteen Committee (2012 - 2014)

Member Sports Committee (2010 - 2012)

Member Editorial Committee (2008 - 2010)

Member SPIC MACAY (2008 - 2010)

Member of SASHAKT (2005 – 2007)

Areas of Interest / Specialization

Multi-Photon Processes in Atoms, Atoms in strong laser fields

Subjects Taught

Mechanics

Digital Electronics

Mathematical Physics

Wave and Optics

Research Guidance

Publications Profile

International Journals

- 1. The two-photon process in an atom using the pseudostate summation technique
 - R. Kundliya, V. Prasad and Man Mohan, J. Phys. B, 33, 5263, (2000).
- 2. Photoionization of ground state of NiXIX using a Relativistic Breit Pauli approximation,

Man Mohan, R. Kundliya and K Baliyan, Physica Scripta, 62, 307, (2000).

- 3. Stabilization of Hydrogen atom in intense laser fields
 - R. Kundliya and Man Mohan, Phys. Lett. A, 291, 22, (2001).
- 4. Two-photon ionization using elliptically polarized light
 - R. Kundliya, K. Batra and Man Mohan, Phy. Rev. A, 64, 043404, (2001).
- 5. Multiphoton ionization of atom using pseudostate summation technique
 - R. Kundliya, K. Batra and Man Mohan, J. Phys. B, 34, 4083, (2001).
- 6. Two-photon transitions to Rydberg states of hydrogen

Rachna Joshi, Physics Letters A, Vol. 361, Issues 4-5, 352-355 (2007).

National Journals

- 1. Atom in a femtosecond bichromatic laser field
 - K. Batra, R. Kundliya and Man Mohan, Pramana J. Physics, v 62, No. 1, p31, (2004).

Chapters in Books

1. Multiphoton processes in laser fields

Man Mohan and R. Kundliya, In, "Current Developments in Atomic, Molecular and Chemical

Physics with Applications", (2002), Kluwer Academic/Plenum Press, NY, p31.

2. High Harmonic Generation in Hydrogen Atom in Intense Laser Field,

Rachna Joshi, Pawan Kumar and Man Mohan, Laser and Bose Einstein Condensation with

Applications, p-295, Narosa Publications, 2009.

Conference/ Presentations/Workshops

- 1. Two-photon excitation using L2 technique
 - R. Kundliya, V. Prasad and Man Mohan, In "XIII National Conference in atomic and Molecular

Physics", (2001), IACS, Calcutta.

Published in Indian J. Physics, 76B (4), 535, (2002).

- 2. Study of polarization effect in two quantum photo ionization
 - R. Kundliya and Man Mohan, In International Conference on "Current Developments in Atomic,

Molecular and Chemical Physics with Applications", (2002), University of Delhi, Delhi.

3. Multiphoton excitation and ionization of atom using L2 technique

Rachna Joshi and Man Mohan, In International Conference on "Current Developments in Atomic,

Molecular and Optical Physics with Applications", (March 2006), University of Delhi, Delhi.

Research Projects (Major Grants/Research Collaboration)

Awards and Distinctions

Association With Professional Bodies

Life member, Indian Association of Physics teachers, OMNO: 7196

Other Activities

- 1. Member, Organizing Committee, International Conference on "Current Developments in Atomic, Molecular and Chemical Physics with Applications", 20-22 March 2002, Department of Physics and Astrophysics, University of Delhi, Delhi.
- 2. Member, Scientific Committee, International Conference on "Current Developments in Atomic, Molecular and Optical Physics with Applications", March 2006, Department of Physics and Astrophysics, University of Delhi, Delhi.