Curriculum Vitae

Ritesh K Singh

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Personal Information	**Full Name**	:	Ritesh Kumar SINGH	**Gender**	:	Male
	Date of Birth	:	18th February, 1977	**Nationality**	:	INDIAN
	Place of Birth	:	Chapara, India			

Current Address

Lehrstuhl für Theoretische Physik II
Institut für Theoretische Physik und Astronomie
Universität Würzburg
Am Hubland
97074 Würzburg

Present Academic Status

Post-doctoral fellow with **Prof. Werner Porod** at Lehrstuhl für Theoretische Physik II, Universität Würzburg, since December 2007.

Academic Background (University upwards)

Post-doctoral fellow under CEFIPRA project: February – November, 2007 with **Prof. Fawzi Boudjema** and **Prof. Geneviève Bélanger** at Laboratoire d'Annecy-Le-Vieux de Physique Theorique, Annecy.

Post-doctoral fellow under CEFIPRA project: December 2005 – January 2007 with **Prof. Abdelhak Djouadi** at Laboratoire de Physique Theorique, Orsay.

Ph.D. in Physics from Indian Institute of Science, Bangalore, India in **2006**. Thesis on *"Study of CP-violation and determination of Higgs boson properties at future colliders"* submitted in November, 2005 under the supervision of **Prof. Rohini M. Godbole**.

M.S. in Physics from Indian Institute of Science, Bangalore, India in **2001**. Thesis on *"Signatures of CP violation and physics beyond the Standard Model in $\gamma\gamma$-collider"* submitted in April, 2001 under the supervision of **Prof. Rohini M. Godbole**.

B.Sc. in Physics with Honors from Ranchi University, Ranchi, India in **1998** with first division.

Research interests

- Beyond the Standard Model phenomenology at the Large Hadron Collider (LHC), International Linear Collider (ILC) and Photon Linear Collider (PLC),
- Characterization of (non-)standard Higgs bosons at various colliders,
- CP violation in various fundamental interactions,
- Polarization/spin measurement of top quark and other fundamental particles,
- Role of beam polarization at ILC and PLC,
- Phenomenology of KK-excitations in various extra-dimension models.
- Phenomenology of Supersymmetry (with or without CP-violation) and dark matter.

— **List of publication** attached/sent separately.
— **Research statement** attached/sent separately.

Awards/Grants received

1. Junior Research Fellowship for 2003-2005 received from Council for Scientific and Industrial Research of Government of India.
2. Secured a position in top 20% for National Eligibility Test (NET) for Lecturer-ship, in June 2002 (result declared at the end of 2002). Awarded by a certificate for the same.
3. Secured a position in "top 5" in National Graduate Physics Examination (NGPE) organized by Indian Association of Physics Teachers (IAPT), 1997. Awarded by a Gold medal and a certificate for the same.
4. Secured a position in "top 25" in NGPE, 1996. Awarded by a certificate for the same.

Teaching experience

1. Teaching assistant for master level students for **Nuclear and particle physics** course, August-December 2001.
2. Teaching assistant for master level students for **Quantum Field Theory** course, August-December 2003.

Schools attended

1. SERC school on "Theoretical High Energy Physics", Harish-Chandra Research Institute, Allahabad, March 2001.
2. SERC school on "Theoretical High Energy Physics", Institute of Physics, Bhubaneswar, February–March 2002.
3. SERC school on "Theoretical High Energy Physics", Indian Institute of Technology, Chennai, February–March 2003.
4. School on "Parallel Computing and Applications", Institute of Mathematical Sciences, Chennai, January 7-14, 2005.
5. Monte Carlo School 2008: Physics at Terascale, Strategic Helmholz Alliance, DESY Hamburg, 21-24 April, 2008.
6. Monte Carlo School 2009: Physics at Terascale, Strategic Helmholz Alliance, DESY Hamburg, 20-23 April, 2009.

Conferences attended/talks presented

1. First meeting of "Indian Linear Collider Working Group", Center for High Energy Physics, IISc, Bangalore, March 24-27, 2002; Work on Higgs boson characterization at photon collider presented.
2. Second meeting of "Indian Linear Collider Working Group", Tata Institute of Fundamental Research, Mumbai, January 1-2, 2003; Work on Higgs boson CP properties at photon and linear collider presented.
3. PASCOS'03, Tata Institute of Fundamental Research, Mumbai, January 3-8, 2003.
4. Third meeting of "Indian Linear Collider Working Group", Tata Institute of Fundamental Research, Mumbai, May 8-10, 2003; Work on Higgs boson CP properties at photon with realistic photon spectrum presented.
5. Fourth meeting of "Indian Linear Collider Working Group", Center for High Energy Physics, IISc, Bangalore, October 8-10, 2003; Work on anomalous VVH coupling at linear collider presented.

6. Sixth "ACFA Workshop on Physics and Detector at Linear Collider", 15-17 December 2003, Tata Institute of Fundamental Research Mumbai, India; Work on Higgs CP properties at photon collider and linear collider presented.

7. Eighth "Workshop on High Energy Physics and Phenomenology", Indian Institute of Technology, Mumbai, January 2004.

8. Fifth meeting of "Indian Linear Collider Working Group", Center for High Energy Physics, IISc, Bangalore, October 13-15, 2004; Work on tau polarization for MSSM Higgs boson at linear collider presented.

9. "DAE-BRNS Symposium on High Energy Physics", Saha Institute for Nuclear Physics, Kolkatta, November 29 - December 3, 2004; Work on tau polarization for MSSM Higgs boson at linear collider presented.

10. Rencontres de Physique des Particules, Institute Henri Poincare, Paris, 1-3, March 2006; Work on anomalous VVH coupling at linear collider presented.

11. Tools for SUSY and the new physics, LAPTH-LAPP, Annecy, June 26-28, 2006.

12. Rencontres de Physique des Particules, LPSC, Grenoble, 28 Feb.-2 March, 2007; Work on top-polarization presented.

13. Rencontres de Moriond - EW 2007, La Thuile, 10-17 March 2007; Work on top polarization presented.

14. Les Houches 2007: Physics at TeV Colliders, Les Houches, 11-29 June 2007.

15. Photon 2009, Paris, – -13 July 2007; Work on Higgs CP properties at photon collider presented.

16. Dark matter at the crossroads, DESY Hamburg, 29 September – 2 October, 2008.

17. 2nd Annual Workshop of the Helmholtz Alliance 'Physics at the Terascale', RWTH Aachen, 26-28 November 2008.

18. Top quark physics:from the Tevatron to the LHC, CERN Geneva, 18 May - 5 June 2009; Work on anomalous top decay presented.

19. Les Houches 2009: Physics at TeV Colliders, Les Houches 17-26 June, 2009; Work on use of top polarization in new physics processes presented.

References

1. Prof. Geneviève Bélanger
   Labo. d'Annecy-Le-Vieux de Physique Theorique
   9, Chemin de Bellevue, BP 110
   74941 Annecy le Vieux Cedex, France
   Email : belanger@lapp.in2p3.fr

2. Prof. Fawzi Boudjema
   Labo. d'Annecy-Le-Vieux de Physique Theorique
   9, Chemin de Bellevue, BP 110
   74941 Annecy le Vieux Cedex, France
   Email : boudjema@lapp.in2p3.fr

3. Prof. Abdelhak Djouadi
   Laboratoire de Physique Théorique
   Bat. 210, Universite Paris Sud XI
   91405 Orsay Cedex, France
   Email : Abdelhak.Djouadi@th.u-psud.fr

4. Prof. Rohini M. Godbole
   Center for High Energy Physics
   Indian Institute of Science
   Bangalore, 560012, India
   Email : rohini@cts.iisc.ernet.in

5. Dr. Sabine Kraml
   LPSC Grenoble
   53, avenue des Martyrs
   38026 Grenole Cedex - France
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6. Prof. Werner Porod
   Institut für Theoretische Physik und Astrophysik
   Universität Würzburg, Am Hubland
   D-97074 Würzburg, Germany
   Email : werner.porod@physik.uni-wuerzburg.de

7. Prof. Saurabh D. Rindani
   Physical Research Laaboratory
   Navarangpura, Ahmedabad
   380 009, India
   Email : saurabh@prl.res.in