CURRICULUM VITÆ

1. Name: Prakash Mathews

2. Date of Birth: 25th Sept. 1963

3. Place of Birth: Komalloor, Kerala, India.

4. Nationality: Indian

5. Marital Status: Married

6. Present position : Professor

7. Affiliation: Saha Institute of Nuclear Physics

1/AF Saltlake, Kolkata 700064

8. Academic qualifications: • **Ph.D.**, IIT Kanpur, 1993

9. Earlier employment:

Lecturer	School of Physics University of Hyderabad	June 2001	June 2004

Post Doc	Instituto de Fisica Teorica São Paulo, Brazil	Oct. 1999	June 2001
Post Doc	Dept. of Theoretical Physics Tata Inst. Fundamental Research	Aug. 1996	July 1999
Post Doc	Centre for Theoretical Studies Indian Institute of Science	Aug. 1993	July 1996

10. Special awards, honours or distinctions:

International Fellowships and Associateship:

- **Associate** at the Abdus Salam International Center for Theoretical Physics, **ITALY**, for the period 1 Jan 2002 - 31 Dec 2009.
- **Commonwealth Fellow** at the Institute of Particle Physics Phenomenology, University of Durham,**UK**, Sept 2004 - Feb 2005.

- **FAPESP Fellow** at the Instituto de Fisica Teorica, Sao Paulo, **BRAZIL**, Oct 1999 - June 2001.

11. *PhD students graduated and current position:*

- Dr. M. C. Kumar, faculty at IIT Guwahati, India
- Dr. Satyajit Seth, Post Doctoral Fellow, Institute for Particle Physics Phenomenology, Durham, UK
- Dr. Goutam Das, Post Doctoral Fellow at DESY, Hamburg, Germany

12. Highlights of Research work:

My main research activity is in High Energy Physics Phenomenology, with special emphasis on Physics beyond the SM (BSM) and perturbative QCD. Main focus in physics beyond the SM has been to look for collider signatures of plausible scenarios that are expected to emerge at the LHC *viz.*: Extra dimension, Unparticle physics, Excited leptons, Non commutative space-time which might reveal possible pattern under which the SM is likely to be altered at the TeV scale. Main contribution in precision QCD computation has been in BSM are extra-dimension models, pseudo-scalar Higgs, Form factor to 2,3-loop order in QCD etc., which would be important to constrain the BSM model parameters.

13. Select list of Publication:

1. Three loop form factors of a massive spin-2 particle with nonuniversal coupling
   Phys.Rev. D95 (2017) 034035 T Ahmed, P Banerjee, P K. Dhani, P Mathews, N Rana, V. Ravindran

2. Pseudo-scalar Higgs boson production at $N^3LO_A + N^3LL'$
   Eur.Phys.J. C76 (2016) 663
   T Ahmed, M Bonvini, M.C. Kumar, P Mathews, N Rana, V. Ravindran, L Rottoli

3. Diphoton production in the ADD model to NLO+parton shower accuracy at the LHC
   JHEP 1212 (2012) 102
   R. Frederix, Manoj K. Mandal, Prakash Mathews, V. Ravindran, Satyajit Seth, P. Torrielli, M. Zaro

4. Neutral triple electroweak gauge boson production in the ADD model at the LHC
   Phys. Rev. D85 (2012) 094507
   M. C. Kumar, Prakash Mathews, V. Ravindran, Satyajit Seth

5. Spin-analysis of s-channel diphoton resonances at the LHC
   Phys. Rev. D84 (2011) 115008
   M. C. Kumar, Prakash Mathews, A. A. Pankov, N. Paver, V. Ravindran, A. V. Tsytrinov

6. NNLO QCD corrections to the resonant sneutrino/slepton production at Hadron Colliders
   Nucl. Phys. B850 (2011) 287
   Swapan Majhi, Prakash Mathews, V. Ravindran

7. Graviton plus vector boson production to NLO in QCD at the LHC
   Nucl. Phys. B847 (2011) 54
   M. C. Kumar, Prakash Mathews, V. Ravindran, Satyajit Seth

8. Unparticle physics at hadron collider via dilepton production,
   Phys. Lett. B657 (2007) 198, Prakash Mathews, V. Ravindran

9. PDF and scale uncertainties of various DY distributions in ADD and RS models at hadron colliders, ***Eur. Phys. J C49 (2007) 599***,
   M. C. Kumar, Prakash Mathews, V. Ravindran

10. Next-to-Leading Order QCD corrections to the Drell-Yan Cross section in models of TEV-Scale Gravity,
    Nucl. Phys. B713 (2005) 333,
    Prakash Mathews, V. Ravindran, K. Sridhar and W.L. van Neerven.

11. Searching for Signals of Minimal length in Extra Dimensional Models using dilepton production at Hadron Colliders,
    Phys. Lett. B603 (2004) 46,
    Gautam Bhattacharyya, Prakash Mathews, Kumar Rao, K. Sridhar

12. NLO-QCD Corrections to $e^+e^- \to$ hadrons in Models of TeV-Scale Gravity,
    JHEP 0408 (2004) 048,
    Prakash Mathews, V. Ravindran, K. Sridhar

13. Excited Leptons at the CERN Large Hadron Collider,
    Phys. Rev. D65 (2002) 075003,
    O. J. P. Eboli, S. M. Lietti and Prakash Mathews

14. Direct Signals for Large Extra Dimensions in the Production of Fermion Pairs at Linear Colliders,
    Phys. Rev. D64 (2001) 035005,
    O. J. P. Eboli, M. B. Magro, Prakash Mathews and P. G. Mercadante

15. Compton scattering in noncommutative space-time at the NLC,
    Phys. Rev. D63 (2001) 075007,
    Prakash Mathews

16. Testing TeV scale quantum gravity using dijet production at the Tevatron,
    JHEP 0007 (2000) 008,
    Prakash Mathews, Sreerup Raychaudhuri and K. Sridhar

17. Getting to the top with extra dimensions,
    Phys. Lett. B450 (1999) 343,
    Prakash Mathews, Sreerup Raychaudhuri and K. Sridhar

18. Higher Orders in the Colour-Octet Model of J/Ψ Production,
    Phys. Rev. D56 (1997) 3019,
    Sourendu Gupta and Prakash Mathews

19. Bloch-Nordsieck Thermometers: One-loop Exponentiation in Finite Temperature QED,
    Nucl. Phys. B458 (1996) 189,
    Sourendu Gupta, D. Indumathi, Prakash Mathews and V. Ravindran