

[Under the aegis of MHRD- Global Initiative of Academic Network (GIAN)]

# Introduction to Quantum Chromodynamics (QCD)

University of Mumbai

2<sup>nd</sup> November, 2016- 9<sup>th</sup> November, 2016

## Topics:

- Introduction to QCD [symmetries, quantization, renormalization]
- Infrared aspects: KLN theorem, factorization, eikonal approximation, webs
- Resummation of large logarithmic corrections, and applications to LHC processes

## You should attend if..

- You are a Ph. D. student working in the area of theoretical and experimental High Energy Physics (HEP)
- You are a post-doctoral fellow or young researchers in HEP
- You are senior colleague in a university or national institute and find the course useful due to specialized topics

## The participation fees for taking the course is as follows:

Ph. D. Students	: Rs. 1000.00
M.Sc, Students	: NIL
Participants from abroad	: US \$100.00
Senior Faculty	: Rs. 2000.00



## Prof. Eric Laenen

**Professor in Theoretical Physics,  
University of Amsterdam**  
Research Interest: High Energy  
Collider Phenomenology and QCD

Prof. Eric Laenen is an internationally renowned expert in the area of high energy collider phenomenology and Quantum Chromodynamics. He received his Ph.D. from Stony Brook University, and held postdoctoral positions at Fermilab and CERN. Prof. Laenen is the head of the theory group at Nikhef, Amsterdam, Netherlands since 2005. He is also Professor of Theoretical Physics at the University of Amsterdam and at Utrecht University.

Prof. Eric Laenen has wide teaching experience and has given lectures at more than 10 international schools in HEP including the prestigious CTEQ school and the European CERN School in High Energy Physics.

## Prof. Anuradha Misra

**Professor and Head of the Department,  
Department of Physics, Mumbai University**  
Research Interest: Quantum Chromodynamics  
and Light-front field theory

**How to apply:** The applicants should register at GIAN site and apply in the application form available on GIAN site or the form attached with this poster mentioning the GIAN registration number in the subject line.

Applicants can visit GIAN site at the following link

<http://www.gian.iitkgp.ac.in>

**Mode of payment:** Demand draft in favour of "Finance & Accounts Officer, University of Mumbai" payable at Mumbai. The demand draft is to be sent to the Course Coordinator at the address given below

The participants may be provided with hostel accommodation depending on the availability, Request for hostel accommodation may be submitted by sending a mail at [gian\\_qcd@mu.ac.in](mailto:gian_qcd@mu.ac.in)

## Course Co-ordinator:

**Prof. Anuradha Misra,**  
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