



**Office of the Media Coordinator  
Jamia Millia Islamia**

December 14, 2016

**Press Invite/Release**

**GIAN Course on “Introduction to Perturbation Theory” at Jamia Millia Islamia**

Prof. Antoni De Felice, a renowned Professor at Yukawa Institute for Theoretical Physics, Kyoto University, Japan will deliver a week long course on, ‘Introduction to Cosmological Perturbation Theory’ at Centre for Theoretical Physics (CTP), Jamia Millia Islamia under the aegis of MHRD’s Global Initiative for Academic Networks (GIAN) in Higher Education.

The 6-day lecture series from December 16-23, 2016 under GIAN programme has been organised by Centre for Theoretical Physics with Prof. M. Sami as its Course coordinator.

“The main objective of the course is to understand the foundation of perturbation theory in a gauge invariant formulation”, Prof. Sami said.

Innovative and integrated approaches to understand the cosmological perturbation theory will also be deliberated in the lectures.

The main objectives of this course are to: understand the Lagrange approach of perturbation theory in order to study both the background and the perturbation fields; know how to build gauge invariant variables and why gauge invariance is central idea for studying cosmological perturbations and understand the ghost conditions in GR and modified theories.

Prof. De Felice is known for his work on modified gravity models, namely massive gravity, bigravity,  $f(R)$  theories and non-gaussianities for general models of one scalar field. He has published more than 80 papers in highly acclaimed international journals. Dr. De Felice is regarded as one of the leading experts on modified theories of gravity internationally and has lectured on cosmological perturbations worldwide.

**Prof. Saima Saeed**

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