



# Einstein lectures

PUBLIC LECTURE SERIES CELEBRATING THE CENTENARY OF  
ALBERT EINSTEIN'S GENERAL THEORY OF RELATIVITY

Einstein lecture by

## Bala Iyer

*ICTS-TIFR, Bengaluru, India*

### Faint Strains of the Gravitational Wave Symphony and the Dawn of Multi-messenger Astronomy

The first detection of gravitational waves from a black hole binary in 2015 was a breakthrough, taking a century to realize, and made possible by the coming together of a remarkable experiment and an exquisite theory complemented by the best in sophisticated data analysis, state of the art computing and the transition to "big science". For this discovery, Rainer Weiss, Kip Thorne and Barry Barish received the Nobel Prize for Physics in 2017. A week after the announcement of the discovery in Feb 2016, the LIGO-India Mega-Project received its in-principle approval from the Indian government. The discovery of gravitational waves from a neutron star binary in 2017 and the intense associated electromagnetic follow up heralds the launch of a new multi-messenger astronomy with its potential to impact astrophysics, cosmology and fundamental physics.



Bala Iyer is currently Simons Visiting Professor at ICTS-TIFR, Bengaluru. He is one of the pioneers in the modelling of high accuracy gravitational waveforms from the in-spiral of neutron stars and black holes. He is the Chair of the IndIGO Consortium from its inception in 2009 and was PI of IndIGO participation in the LIGO Scientific Collaboration (LSC) during 2014-19. He was a Member of the Core team for LIGO-India Mega Project Proposal. Before joining as Visiting Professor at ICTS, he has held various academic positions at Raman Research Institute, Bengaluru and has been a Visiting Scientist in France, UK, Germany and USA. He is a Fellow of American Physical Society and International Society on General Relativity and Gravitation. He has been involved in REAP (Research Education Advancement Program) for B.Sc students at the Bangalore Planetarium for over two decades and Public outreach on General Relativity and Gravitational Waves.

**25 November 2019 (Monday) at 3 pm**  
E.M.S. Seminar Complex,  
University of Calicut

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