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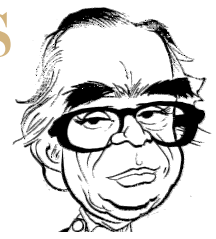
Vishveshwara Lectures

A PUBLIC LECTURE SERIES IN HONOUR OF BLACK HOLE PHYSICIST C. V. VISHVESHWARA



GRAVITATIONAL-WAVE ASTRONOMY: NEW DISCOVERIES, PUZZLES & PROSPECTS

Ever since their first discovery by the Laser Interferometer Gravitational-Wave Observatory, compact binary coalescences of neutron stars and black holes have resolved several old enigmas, while raising new questions in gravity, astronomy and fundamental physics. They ultimately hold the secret to resolve their own puzzles and explore physics beyond the Standard Model. This would require the construction of observatories with even better sensitivity and astrophysical reach. This talk will highlight what we have learned so far from gravitational wave observations and plans for building new observatories such as the LIGO-India, Einstein Telescope and Cosmic Explorer.

B.S. Sathyaprakash

Penn State & Cardiff University

A world-leading expert on gravitational waves, B. S. Sathyaprakash is the Bert Elsbach Professor at the Department of Physics at Penn State, USA, Professor of Gravitational Physics at Cardiff University, UK, and an Associate of ICTS. He is a Fellow of the American Physical Society, International Society for General Relativity and Gravitation, and the Institute of Physics UK and a Distinguished Alumnus of the Indian Institute of Technology, Madras. He serves as the Global Science Liaison for the Cosmic Explorer project. His research has been awarded several prizes both individually and as part of the LIGO Scientific Collaboration.

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