Department of PHYSICS and ASTRONOMY



Numerical Relativity and the Future of Gravitational-Wave Astronomy

Prof. Mark Hannam Cardiff University School of Physics and Astronomy

Abstract: Gravitational waves have been directly detected for the first time, from the collision of two black holes. Measuring the properties of the black holes (their masses and spins) required theoretical models of the signal, calculated by combining analytic approximation techniques with numerical solutions of the full Einstein equations for the last orbits and merger. I will discuss how the models were produced that were used in measuring the properties of the first black-hole-binary observed, and the challenges ahead as we enter the era of gravitational wave astronomy.







July 18, 2016

3:00 pm Subinoy Das: "Astrophysical Small Scale Signatures of Non-WIMP Dark Matter" 277 Phillips Hall

4:00 pm Mark Hannam Colloquium 265 Phillips Hall

5:00 pm Reception 277 Phillips Hall