

## **Cosmology from Gravitational Waves**

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The direct detection of gravitational waves has opened a new window on the universe. The potential of gravitational wave observations in constraining cosmology only starts to be exploited. After an introduction about gravitational waves in the FLRW universe, these lectures present two observables through which gravitational wave detection could provide us with new information on the characteristics of the universe: the detection of a stochastic background of gravitational waves of primordial origin, and the use of compact binaries as standard sirens to test the expansion of the universe. I will present the theory behind each observable, and discuss concrete examples.