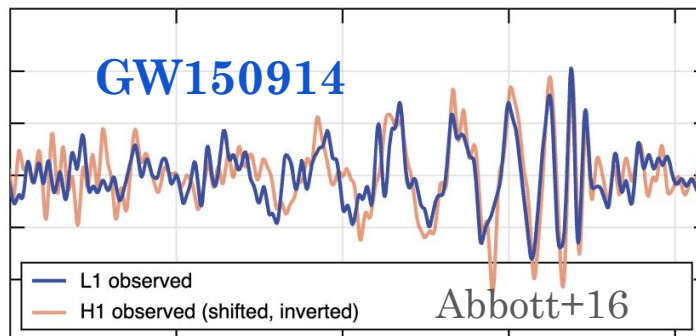




Gravitational-Wave (GW) Astrophysics

Lecture 3

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Lecture 3

GW Generation

Einstein Equation and linearized theory

$$R_{\mu\nu} - \frac{1}{2}Rg_{\mu\nu} = \frac{8\pi G}{c^4}T_{\mu\nu}$$

Space-time tells matter how to move;

matter tells spacetime how to curve

J. Wheeler

$$\left(-\frac{\partial^2}{\partial t^2} + \nabla^2\right)\bar{h}_{\mu\nu} = -\frac{16\pi G}{c^4}T_{\mu\nu}$$

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