

# Bimetric gravity and analysis of constraints

*Saturday 6 January 2018 09:15 (45 minutes)*

In bimetric gravity, a number of constraints are needed to ensure that the theory is free of ghosts and propagates the appropriate number of degrees of freedom. I will describe my recent work analyzing the origin and structure of these constraints. The ghost free bimetric theory has six constraints, four of which are first class and are associated with the diffeomorphism invariance of the theory. Their Poisson brackets form an algebra from which possible spacetime metrics can be identified. The remaining two constraints are second class and are responsible for removing the Boulware-Deser ghost.

## Summary

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**Session Classification:** Saturday AM

**Track Classification:** Gravitation and Gravitational Waves