(Poster 26)

Angular momentum at null infinity in five dimensions

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In d dimensions,

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$$\sim \frac{1}{r^{(d-2)/2}} \quad > \quad \sim \frac{1}{r^{d-3}}$$

gravitational waves

mass or angular momentum

How we define the mass and angular momentum in higher dimensions is non-trivial task.

Solving Einstein equations in five dimensions, we can show that

- the regularity of mass and angular momentum
- Poincare covariance

$$M_{ab} \to M_{ab} + 2P_{[a}\omega_{b]} - \left(f \frac{d}{du} M_{ab} \right)_{\text{radiation}}$$