

(Poster 26)

Angular momentum at null infinity in five dimensions



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collaboration with

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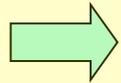
In d dimensions,

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

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**

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