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## **(G\*) Eguchi-Hanson-AdS Solitons**

*Monday 19 June 2023 11:30 (15 minutes)*

The Eguchi-Hanson-AdS<sub>5</sub> family of spacetimes are a class of static, geodesically complete, asymptotically locally AdS<sub>5</sub> soliton solutions of the vacuum Einstein equations with a negative cosmological constant. They have negative mass and are parameterized by an integer  $p \geq 3$  with a conformal boundary with spatial topology  $L(p, 1)$ . In this talk, I will introduce mode solutions of the scalar wave equation on this background and show that the geometry admits a normal mode spectrum. In addition, I will also discuss other geometric properties of these soliton spacetimes.

### **Keyword-1**

Gravitational Soliton

### **Keyword-2**

Anti-de Sitter

### **Keyword-3**

Eguchi-Hanson

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