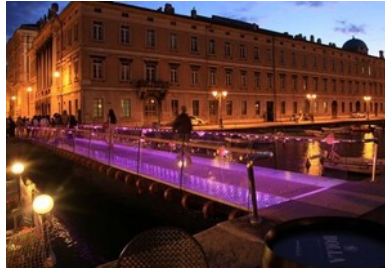


## Meeting PRIN "String Theory as a bridge between Gauge Theories and Quantum Gravity"



Contribution ID: 24

Type: **not specified**

### Quasi-Normal Modes of JMaRT: Charge Instability

*Friday, 23 February 2024 12:00 (15 minutes)*

We consider linear scalar perturbations of JMaRT geometries in type IIB supergravity beyond the near-decoupling limit. In addition to confirm that these solutions suffers of instability for the presence of an ergoregion without horizon, we also find quasi-normal modes (QNMs) with positive imaginary part that can be interpreted in terms of the emission of charged (scalar) quanta with non zero KK momentum. This is a signal that JMaRT solutions suffers also of a charge instability. Using both the correspondence between gravitational perturbations and quantum Seiberg-Witten curves of  $N=2$  Super Yang-Mills with gauge group  $SU(2)$  and  $N_f = (0;2)$  flavours and numerical integration methods we find 'charged' unstable QNMs. The endpoint of these instabilities can be a supersymmetric (BPS) configuration.

**Presenter:** DI BENEDETTO, Carlo (Università di Tor Vergata)

**Session Classification:** Gong Show 2