



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 4259 Type: **Oral Competition (Graduate Student) / Compétition orale (Étudiant(e) du 2e ou 3e cycle)**

(G*) Distorted static black holes with a bubble

Tuesday, 28 May 2024 11:45 (15 minutes)

We constructed a family of static, vacuum five-dimensional solutions with two commuting spatial isometries describing a black hole with a S^3 horizon and a 2-cycle 'bubble' in the domain of outer communications. The solutions have been obtained by adding dipole and quadropole distortions to a seed asymptotically flat solution. We showed that the conical singularities in the undistorted geometry can be removed by an appropriate choice of the distortion.

Keyword-1

Black holes

Keyword-2

General relativity

Keyword-3

Primary authors: KUNDURI, Hari (McMaster University, Mathematics and Physics); BOOTH, Ivan; TAVAYEF, Matin (Memorial University of Newfoundland); ABDOLRAHIMI, Shohreh

Presenter: TAVAYEF, Matin (Memorial University of Newfoundland)

Session Classification: (DTP) T1-2 Black Holes I | Trous noirs I (DPT)

Track Classification: Technical Sessions / Sessions techniques: Theoretical Physics / Physique théorique (DTP-DPT)