

☆ De-singularizing the extremal GMGHS black hole via higher derivatives corrections

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- We construct a regular extension of the GMGHS extremal black hole in a model with $O(\alpha')$ corrections in the action. The de-singularization is supported by the $O(\alpha')$ -terms.
- The regularized extremal GMGHS BHs are asymptotically flat, possess a regular (non-zero size) horizon of spherical topology, with an $AdS_2 \times S^2$ near horizon geometry.
- The near horizon solution is obtained analytically and some illustrative bulk solutions are constructed numerically.