

# HSRGC Colloquium

## From the Black Hole, through the Wormhole to Ultra-Compact Objects

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### **Abstract**

Einstein's General Theory of Relativity is a beautiful gravitational theory which includes Newtonian gravity but goes beyond it predicting the existence of novel gravitational solutions. The present day consensus, however, is that this is not the final theory of Gravity. In our quest for this final theory, modified theories of gravity have been formulated and studied. In this talk, we will focus on the Einstein-scalar-Gauss-Bonnet theory and discuss the impressive variety of gravitational solutions emerging in its context: black holes, wormholes and particle-like, ultra-compact objects.