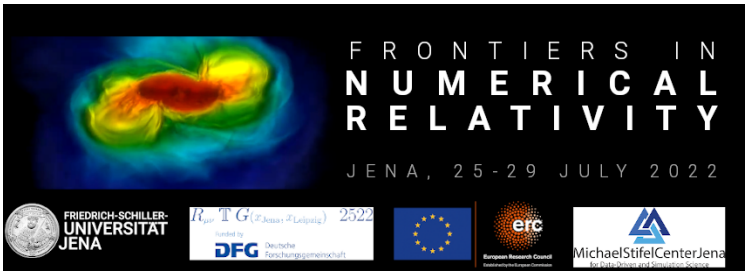

Contribution ID: **47** Type: **not specified**

Binary black hole coalescence in scalar-Gauss-Bonnet gravity

Friday, 29 July 2022 09:15 (15 minutes)

It was recently shown that a broad class of gravity theories that couples a dynamical scalar field to the Gauss-Bonnet invariant can lead to spontaneous scalarization of black holes, allowing these objects to grow "scalar hair" once certain conditions are met and to remain "bald" otherwise. While most works on the topic have focused on isolated black holes, progress has recently been made in understanding this effect in binary black hole systems. I will present an overview of what has been achieved so far in this context. I will discuss new phenomena that takes place in black-hole binaries and explore some of the potential observational consequences of these results.

Presenter: Dr OKADA DA SILVA, Hector (Max Planck Institute for Gravitational Physics (Albert Einstein Institute))

Session Classification: Short talks