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Title: **Thickness corrections to topology changing brane - black hole phase transitions**

The study of higher dimensional black holes, branes and their possible interactions is an active field of research in several different areas of modern theoretical physics. One interesting direction, which has been recently introduced by V. Frolov, is to consider a Brane - Black Hole (BBH) system as a toy model for studying merger- and topology changing transitions in higher dimensional classical general relativity, or certain strongly coupled gauge theories through the AdS/CFT correspondence. In the present talk I will discuss the properties of the above BBH system beyond the Dirac-Nambu-Goto (thin-brane) approximation by considering higher order curvature corrections (thickness) to the brane action, and also by considering rotational effects in the background.