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**Hari K Kunduri\*** ([hkkunduri@mun.ca](mailto:hkkunduri@mun.ca)), Department of Mathematics and Statistics, Memorial University of Newfoundland, St John's, NL A1C 5S7, Canada. *Black hole non-uniqueness via spacetime topology in five dimensions.*

The domain of outer communication of five-dimensional asymptotically flat stationary spacetimes may possess non-trivial 2-cycles. I will discuss how this may lead to a gross violation of black hole uniqueness, beyond the existence of black rings. I will demonstrate this with a simple example: a four parameter family of supersymmetric black hole solutions, with spherical horizon topology and a 2-cycle in the exterior. There are black holes in this family with identical conserved charges to the well-known BMPV black hole, showing black hole non-uniqueness in this context. I also discuss a decoupling limit of these new solutions. (Received August 18, 2014)