



Contribution ID: 73

Type: **not specified**

## A new class of radio structures: hybrid ICM/radio tails

*Thursday, 19 September 2019 16:20 (20 minutes)*

We introduce a new class of “hybrid” radio structures associated with tailed sources in clusters of galaxies. These hybrid structures do not appear consistent with models or simulations of material that originated in the outflowing jets. At the same time, they are not random features of the ICM, e.g., from old radio galaxies, because they are structurally connected to tailed sources. Their spectra appear consistent, to first order, with the steeper regions in their associated tail. We will briefly explore the challenges to be solved in explaining these sources, identify other cluster radio structures that may be related, and future work. This work is supported, in part, by U.S. National Science Foundation grant AST 17-14205 to the University of Minnesota.

**Primary authors:** Prof. RUDNICK, Lawrence (University of Minnesota); CLARKE, Tracy (Naval Research Lab); GARON, Avery (University of Minnesota); JONES, Thomas (University of Minnesota); LAMEE, Mehdi (University of Minnesota); NYLAND, Kristina (Naval Research Lab)

**Presenter:** Prof. RUDNICK, Lawrence (University of Minnesota)

**Session Classification:** Extragalactic jets at all scales: from the central supermassive black hole to their interaction with the large scale environments