

Magnetisation of radio relics and implications for dark matter searches

Shock waves driven by merger events can continuously source self-generated magnetic fields at the periphery of galaxy clusters. Diffuse non-thermal emission and polarization measurements from radio relics indicate a magnetisation of the intracluster medium due to merger shocks in addition to particle acceleration at the shock site. I will outline the growth and saturation of such magnetic fields, describe how they can explain the long-standing discrepancy between radio and X-ray observations of these objects, and make the case for a novel astrophysical search strategy for light dark matter species.

Would you be interested in presenting a poster? (this will not impact the decision on your talk)

yes

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