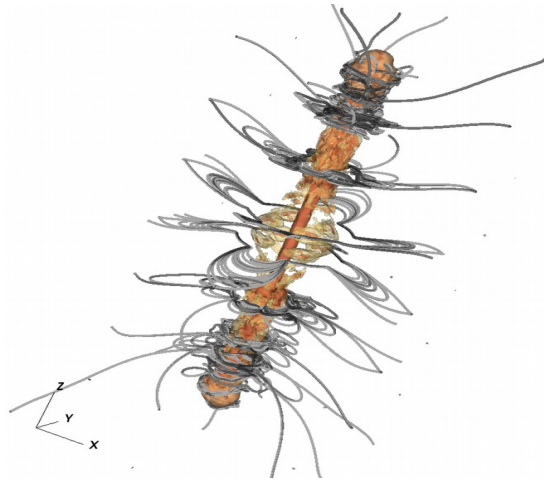
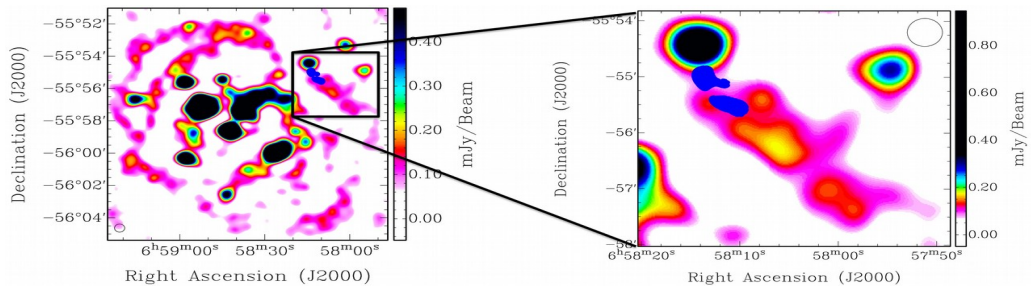


Active Galactic Nuclei (AGN) are known to show presence of powerful jets. These jets are essentially relativistic and collimated beam of plasma that are threaded with magnetic fields. In the figure, 3D image of simulated jet material ejected from that central black hole of AGN is shown (in color) along with toroidally dominated magnetic fields (grey lines). The non-axisymmetric instabilities leading to turbulent features and formation of bow-shaped lobes are evident from the simulations.



First detection of non-thermal Sunyaev-Zeldovich Effect, arising due to relativistic electrons in the jet of a radio galaxy interacting with the cosmic microwave background (CMB).



High fidelity image of ELAIS-N1 field using the GMRT telescope in India at 300-500 MHz band. The effect of state-of-the-art radio algorithms are evident from the clarity and dynamic range of the image. This serves a good platform to study the nature of the astrophysical sources (radio jets, galaxies, etc) which act as the foreground to the redshifted 21cm signal from Cosmic Dawn and Epoch of Reionization.

