

Talk at Splinter Meeting

Splinter B

HIGH-RESOLUTION INTERFEROMETRY IN THE ERA OF
MULTI-MESSENGER ASTRONOMY

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Recent developments have pushed the limits of resolution in astrophysics to new frontiers. Millimetre-wavelength radio interferometric observations with very-long-baseline interferometry (VLBI) and baselines to a radio telescope in orbit in the framework of the RadioAstron mission have brought resolutions down to tens of microarcseconds. At these resolutions, the objects with the highest brightness temperature are probed. Most of these objects emit through the complete electromagnetic spectrum and are being observed from the very-high-energy gamma rays through gamma and X-rays to the radio, and even with neutrino astronomy in the next years. I will report on recent progress in mm- and space-VLBI, including results from the RadioAstron Key Science Programs and from the GMVA, and point towards ongoing developments by the Event Horizon Telescope.