

## High-resolution study of the inner jet of M87 at 8 and 15 GHz

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We present high-resolution dual frequency study of the inner radio jet of M87. The Very Long Baseline Array, one antenna of the Very Large Array and the Effelsberg telescope were used to obtain inner jet images with sub-milliarcsecond resolution at 8 and 15 GHz. Synthesized images with dynamic range higher than 14,000:1 clearly show a limb-brightened structure and a faint counter-feature. The reconstructed spectral index image shows flattening of the spectrum along the spine of the resolved jet. This indicates higher pressure or higher energy of emitting particles associated with a higher plasma speed supporting the spine-sheath model. It has been suggested that the faint most eastern feature might be the true jet base rather than the counter jet. However, we have measured the spectrum to be characteristic of an optically thin jet, not an opaque core.