[초IT-03] Relativistic Jets as Compact Radio Sources

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Studies of compact radio sources since the discovery of quasars have revealed a variety of physical properties: both in morphology and kinematics from sub-parsec to Mega-parsec scales, radiation mechanisms at frequencies from the radio to γ-rays, theoretical models for relativistic jets, etc. The frontier discovery of Very Long Baseline Interferometry (VLBI) observations for the compact extragalactic radio sources have triggered the extensive studies to investigate the underlying physics of the relativistic jets. In this context, the highest resolution VLBI surveys of ultra-compact radio sources provide the potentially important statistical basis for future study. As a tool of this study, a new millimeter VLBI network in Korea, the Korean VLBI Network (KVN) will paly an important role. We present results from large VLBI surveys of compact radio sources at millimeter wavelengths and discuss the prospects with the KVN on this study.