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GIARPS High-resolution observations of T Tauri stars (GHOST): first results on jet emission

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T Tauri stars of the Taurus/Auriga star-forming clouds are a paradigmatic sample for star formation studies. In spite of that, a comprehensive and systematic analysis of the Taurus population with the goal of deriving all the relevant source parameters with sufficient accuracy, is still missing. To fill this gap we have started an observational program (GHOST) with the GIARPS@TNG facility. Its combined wide spectral coverage (optical/near-infrared) and very high spectral resolution are ideal to simultaneously derive both the stellar accretion and ejection parameters. In this presentation I'll show the first results of jet emission. From line ratios of forbidden lines we have derived the physical parameters (temperature, density and ionization fraction) in the jet acceleration zone. These results will provide important benchmarks for jet launching models.

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