Astrophysical Polarimetry in the Time-Domain Era



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Unveiling the Magnetic Fields around Galactic Center

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We present new magnetic field measurement around the Galactic Center regions, including the 20km/s cloud, 50 km/s cloud, Sgr A*, and the Brick. Our data are obtained through the James Clerk Maxwell Telescope (JCMT) B-Fields In Star-forming Region Observations (BISTRO) survey with the POL-2 instrument. We decouple the complicated velocity structure in the Galactic center regions to estimate the velocity dispersion needed for the magnetic field strength estimates with the Davis-Chandrasekhar–Fermi method. We analysis the energy budget and access the relative importance of the magnetic fields and the turbulence for star formation.

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