

**P39a            The L1551 IRS 5 Jet: A Collimated Fast Jet around a Widely  
Opened Wind**

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We obtained a velocity-resolved [Fe II] ( $\lambda 1.644 \text{ } \mu\text{m}$ ) spectrum along the northern jet of L1551 IRS 5 by using the Subaru telescope and IRCS. The [Fe II] emission in the vicinity of IRS 5 has three velocity components: (1) a high velocity component (HVC), (2) a low velocity component (LVC), and (3) a redshifted wing component (RWC) to the HVC. The HVC has a radial velocity of  $-300 \text{ km/s}$  with its line profile not resolved with the spectral resolution of  $60 \text{ km/s}$ . It gets stronger when it goes away from IRS 5 (VLA position). The LVC was seen only in the vicinity IRS 5. Its line width is large ( $\sim 200 \text{ km/s}$ ) near IRS 5 and decreases to  $\sim 100 \text{ km/s}$  at  $3.7 \text{ arcsec}$  away from IRS 5. From an analogy to T Tauri star winds observed in optical forbidden lines, we interpreted HVC as a well collimated coronal jet emanating directly from one of the accreting protostars in the L1551 binary system and LVC as a wind emanating from the interacting region of the stellar magnetic field and the accreting disk. The decrease of line width for the LVC may be direct evidence of the wind collimation. The RWC may be the entrained LVC gas around the HVC jet.