## JETS FROM LOW MASS ACCRETING STARS

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There is excellent evidence that jets originate in protostars of low mass ($M \sim M_{\odot}$). Flow speeds are typically of order a few 100 km $s^{-1}$; the energy for the motion must be generated close to or below the stellar surface, where the escape velocity is of the same order. Here it will be argued that the origin of the jets is connected with the thermodynamics of the accreted gas as it settles towards equilibrium. At some distance below the photosphere, in a spherically symmetrical star, the opacity of the material becomes so high that the outward flow of radiant energy is too slow to balance the inward convection of thermal energy. Consequently there can be no equilibrium, and the symmetry must be broken. The occurrence of jets can be led back to this effect, and the power required to drive them restores the energy balance.

## OBSERVATIONS OF MOLECULAR FLOWS IN S140 AND L723

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ABSTRACT. We have made 15" resolution observations of CO J = 1-0 emission toward L723 and S140 using the Nobeyama 45-m radio telescope. The maps resolved the molecular flow structures clearly. The outflow in the S140 molecular cloud was resolved to be a bipolar structure with its axis being nearly perpendicular to the elongation of the dense core observed in CS emission and to the direction of the infrared polarization. The blueshifted and redshifted components in L723 were resolved into two pairs of bipolar outflows with a point-symmetric structure.