#### Outflows from Young Stellar Objects MHD, Radiation & Chemistry

Bhargav Vaidya<sup>1</sup>

<sup>1</sup> School of Physics and Astronomy, University of Leeds, Leeds.

Visitor Seminar TIFR 2014

#### Outline

#### Star formation: What do we know

#### Star formation: Feedback

# Present challenges

### **Outflow Evolutionary Picture**

### Chemistry in outflows

#### Molecular bullets and EHV emission

#### Numerical code

# Launching and Propagation

#### Radiation force

# Chemistry and Cooling

#### MHD Acceleration

#### Collimation and Radiation

### Force Parameters and its impact

#### Resistive effects

#### A case of Orion Source I

Uni. Leeds

### Molecular Interplay

# Spectra and PV digrams

### Multi-Line survey: Emission

Uni. Leeds

### Multi-line survey: Line Ratios

# Focussing on a single knot

# Rotation or Wiggles?

#### Conclusions