

# Outflows from Young Stellar Objects

## MHD, Radiation & Chemistry

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# Outline

- 1 Introduction
- 2 Motivation
- 3 Methods : Numerical Simulations
- 4 Outflow Dynamics : Launching
- 5 Outflow dynamics : Propagation
- 6 Summary

# 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

# Molecular Interplay

# Spectra and PV digrams

# Multi-Line survey : Emission

# Multi-line survey : Line Ratios

# Focussing on a single knot

# Rotation or Wiggles?

# Conclusions