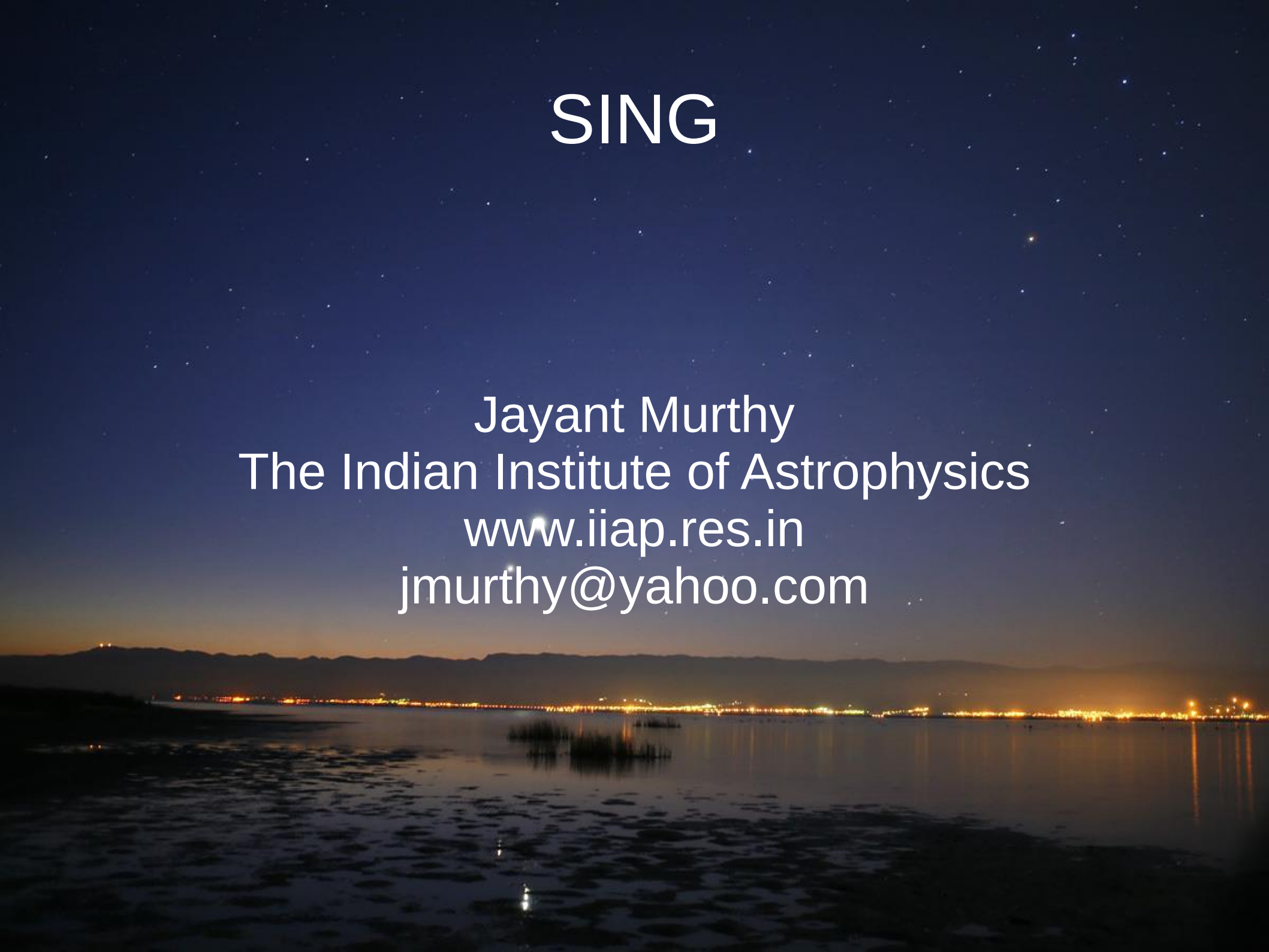
SING

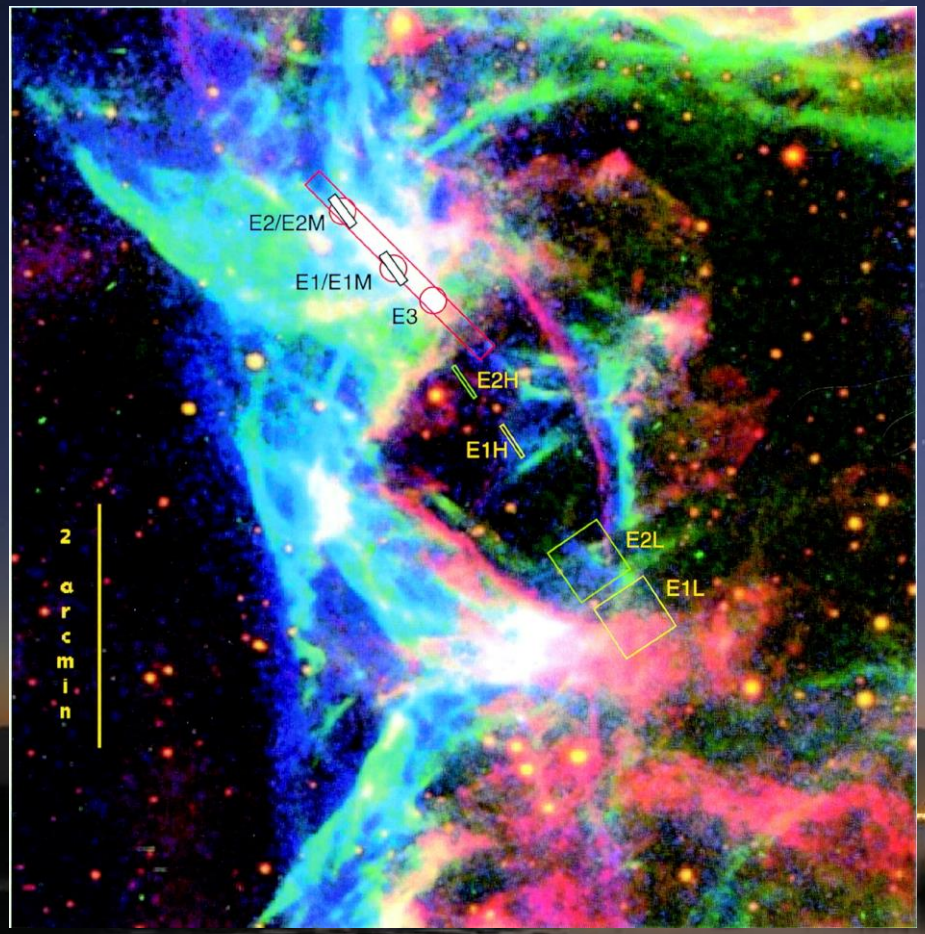
Jayant Murthy
The Indian Institute of Astrophysics
www.iiap.res.in
jmurthy@yahoo.com

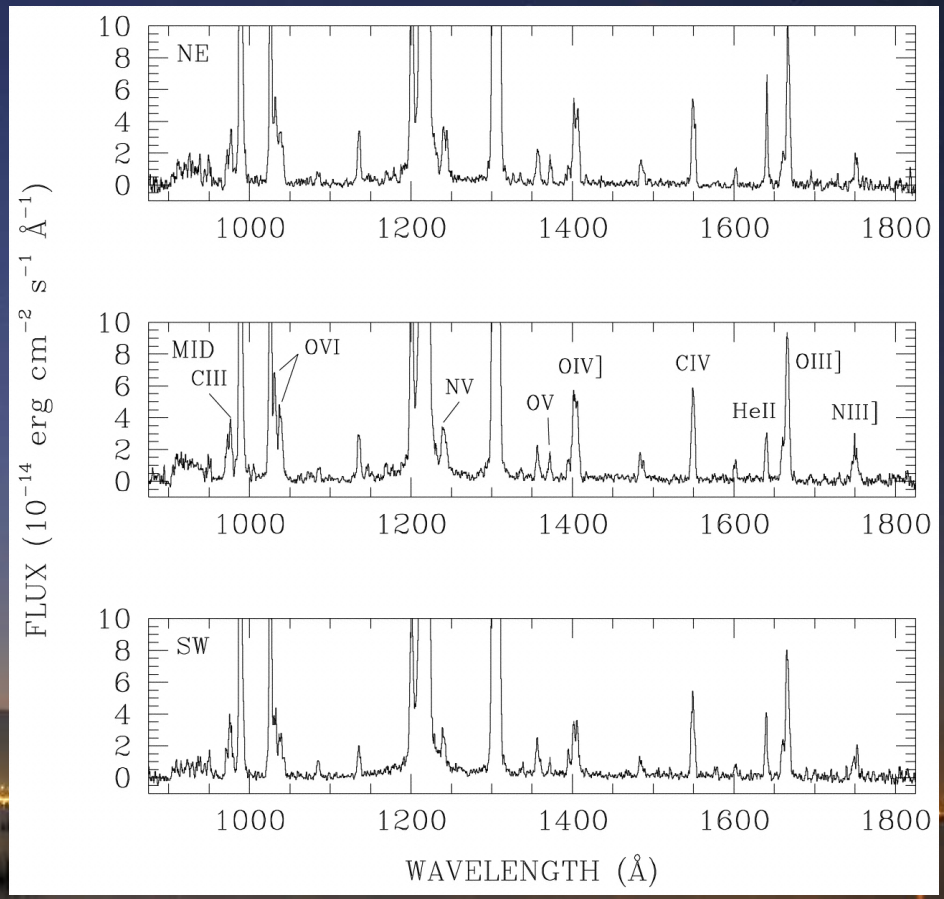


Introduction

- Our group builds small UV payloads.
  - Opportunity to propose for CMSS in May 2018.
  - Final acceptance June 2019.
- Spectroscopic Investigation of Nebular Gas (SING)
  - Ultraviolet spectrograph.
  - Pointed to the sky (anti-Earth).
  - Scientific objectives: Look for hot/cold gas.
  - Understand physical conditions in objects.

Supernova Remnants





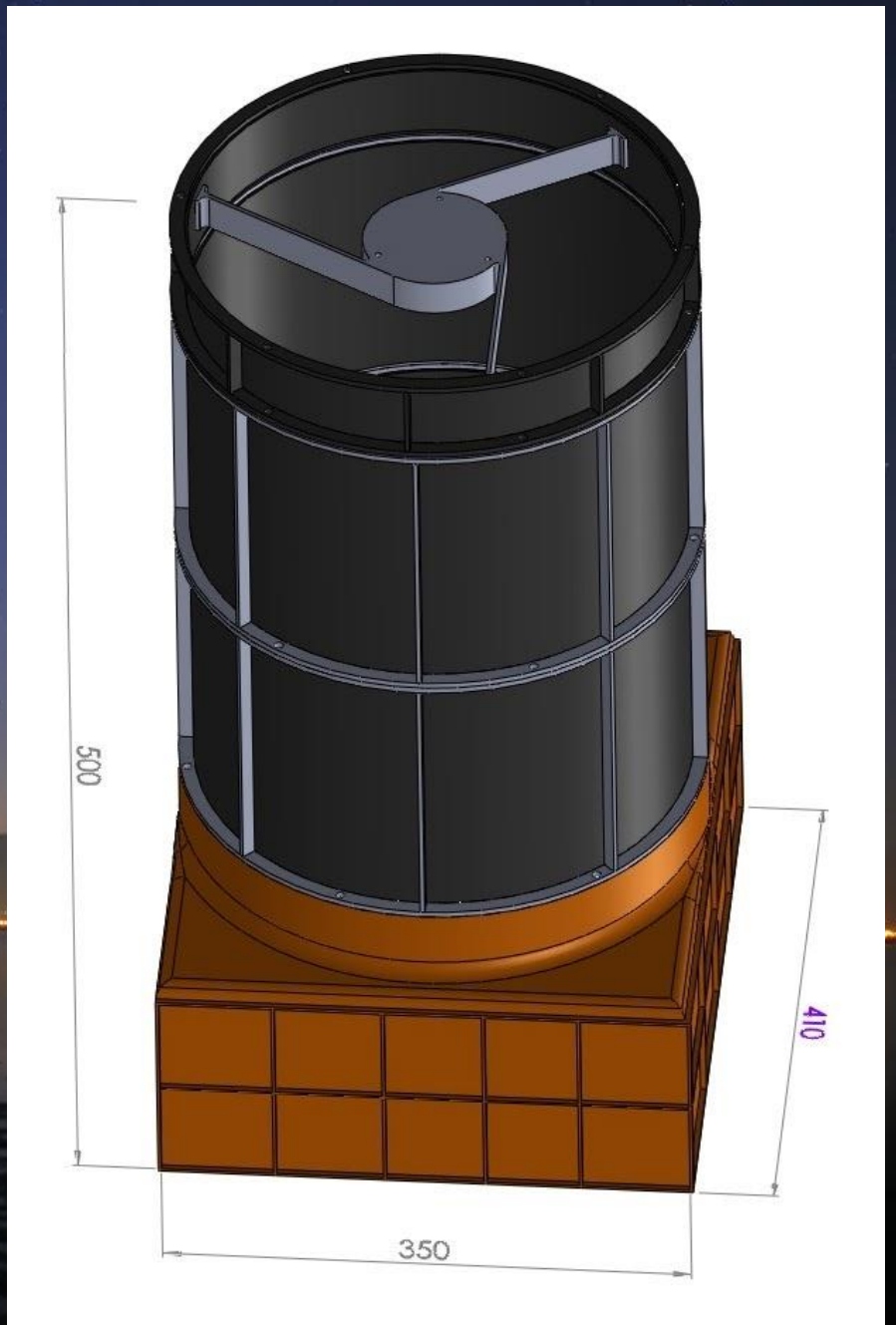
Blair et al. 2002 ApJSS 140, 367 (FUSE and HUT Observations of Radiative Shocks in the Cygnus Loop.

Team

- Jayant Murthy & Mikhail Sachkov (PI).
- 3 scientists: R. Mohan, M. Safonova, B. Kumar.
- 2 PhD students (Bharat Chandra, Shanti Prabha)
- Scientific collaborators at IIA and at universities.

Status

- Completing design.
- Procuring material.
- Assembly to occur in mid-2021.
- Delivery in end-2021.



Challenges

- COVID issues.
- Financial constraints.
- Trying to do space science on a minimal budget.

Acknowledgments

- Funding from Indian Institute of Astrophysics, DST and INASAN.
- UNOOSA and Chinese Manned Space Agency.