

# Billowing Hydrogen

## Simulating Turbulence in HII Regions

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July 31st, 2024



# Outline

Introduction

HII Regions

Emissions

Turbulence

Motivations

Project Goals

Results

Future Work



# HII Regions

- ▶ What is HII?
- ▶ Physical Traits
  - ▶ Powered by hot stars
  - ▶ Can range from AU to parsecs
  - ▶ A type of nebulae



# Emissions

- ▶ A way we observe HII regions
- ▶ Free-free continuum
- ▶ Radio recombination lines (RRLs)



# Radio Imaging

- ▶ Multiple frequencies
- ▶ Doppler shift
- ▶ Mapping velocity



# Turbulence

- ▶ Special considerations



# Motivations



# Project Goals





# Results



# Future Work

