Katyayani Trivedi

Max Planck Institute for Astrophysics, Garching

CV

- B.Tech in Mechanical Engineering, IIIT Jabalpur, India (2016 - 2020)
- MS in Astro and Particle Physics, University of Tuebingen (2021 - 2023)
- Graduate intern, University of Vienna (2023-2024)
- PhD student at MPA (July, 2024 - current)

Research interests

- Metals in absorption, CGM
- Radiation-hydrodynamic simulations, high-z universe

Metal absorption lines from SPICE

Katyayani Trivedi

with

Aniket Bhagwat, Benedetta Ciardi
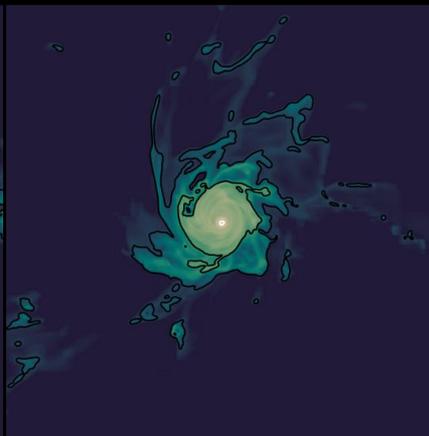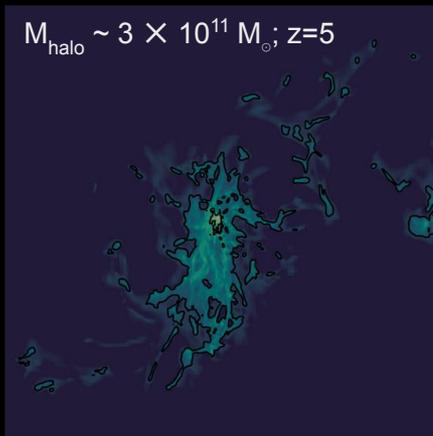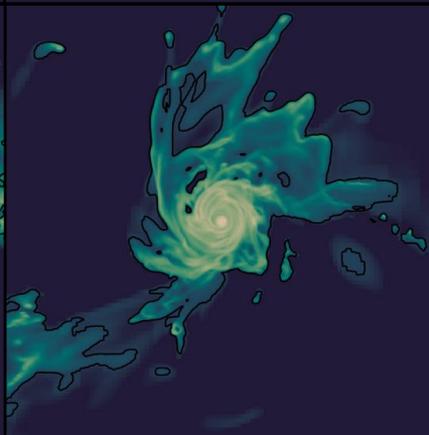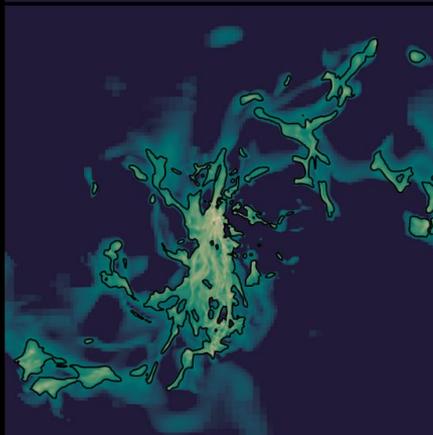Max Planck Institute for Astrophysics, Garching
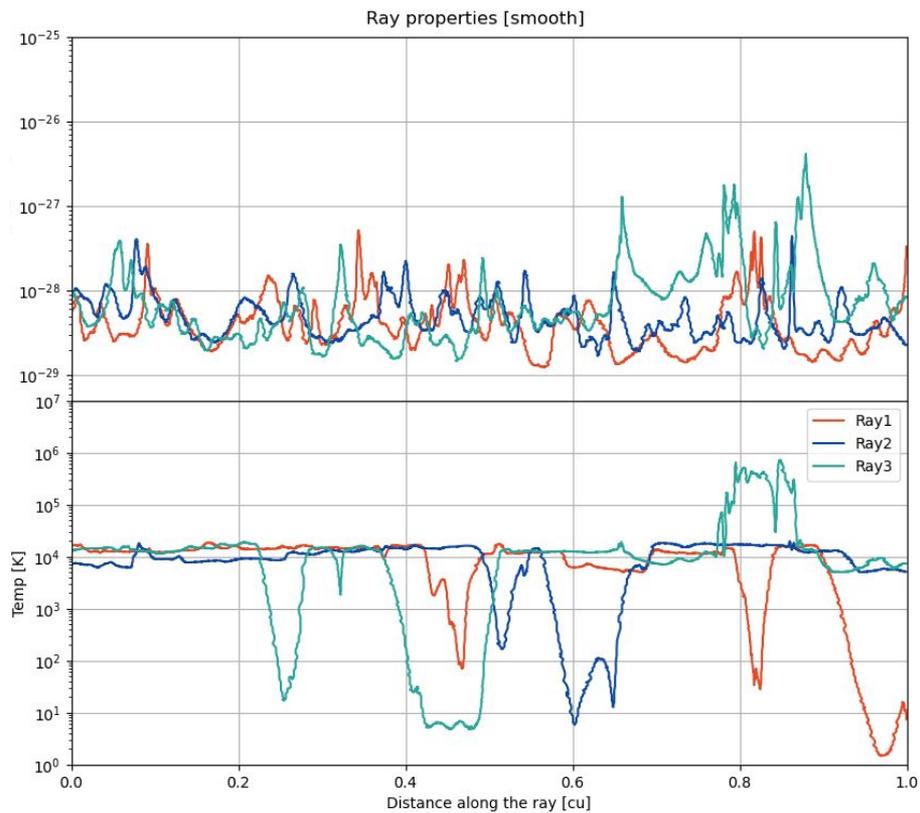
bursty-sn   smooth-sn

$M_{halo} \sim 3 \times 10^{11}\,M_{\odot}$; z=5
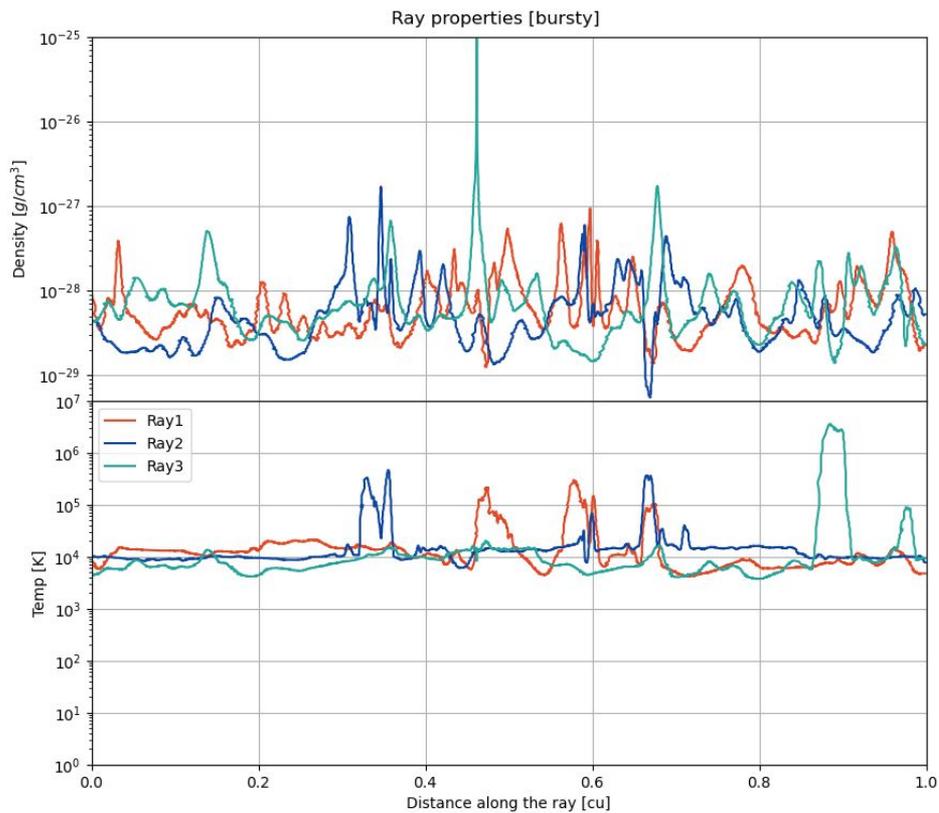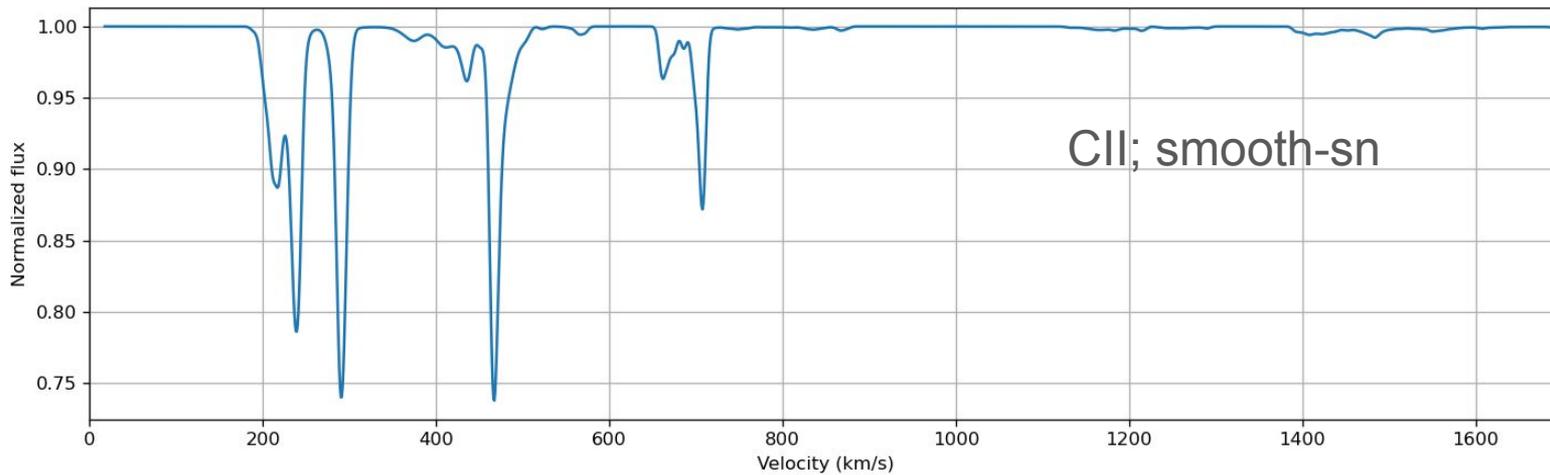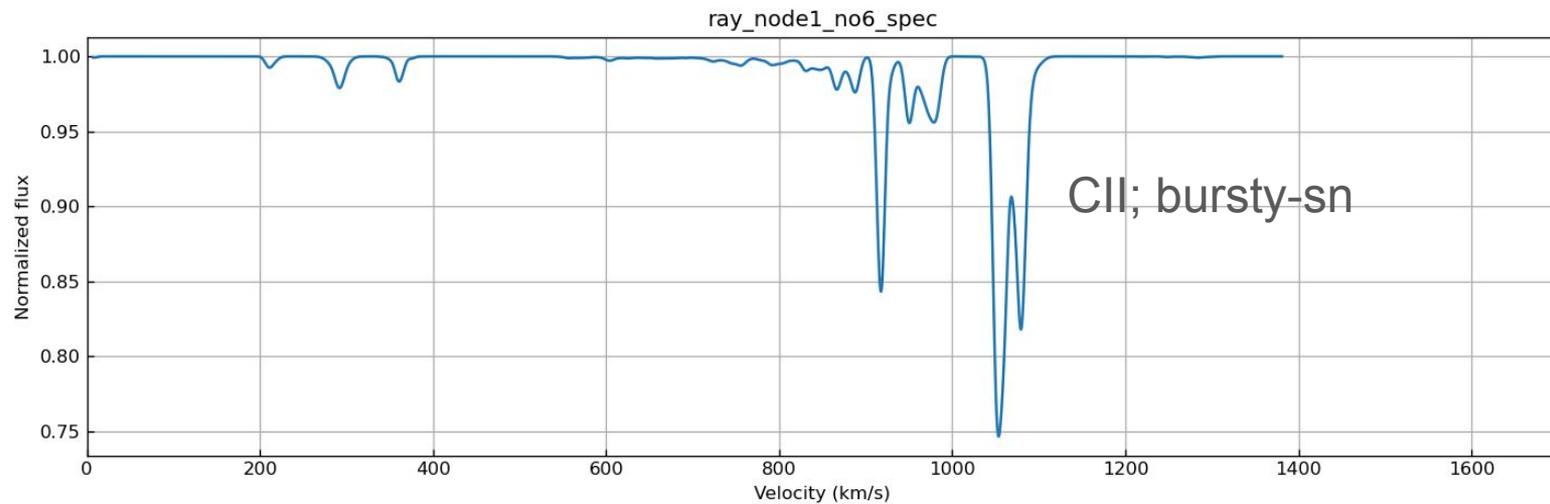
C II

O I

Clumpy, diffused
Extended distribution

Compact disks
Concentrated distribution

- Build a statistical sample of sightlines
- Model species of interest - low and high ionisation state lines
- Study galaxy-absorber correlation
- Redshift evolution

Sample rays

ray_node1_no6_spec

Column Density Distribution Function - CII

CDDF; 1000; bursty