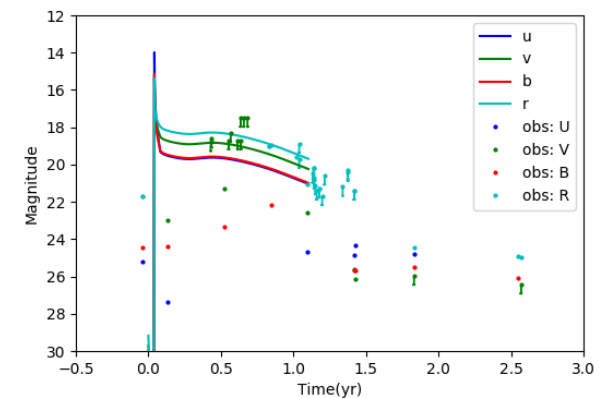
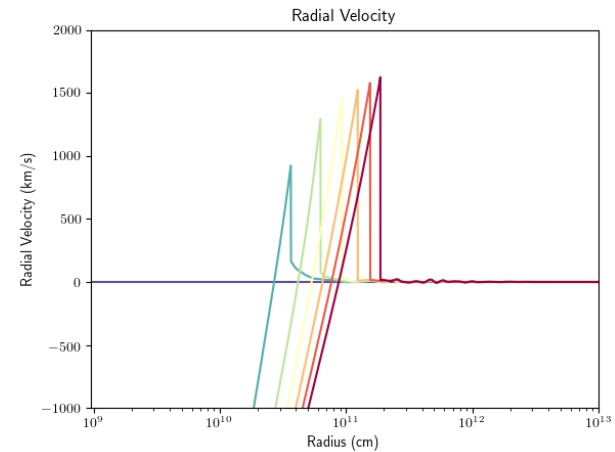
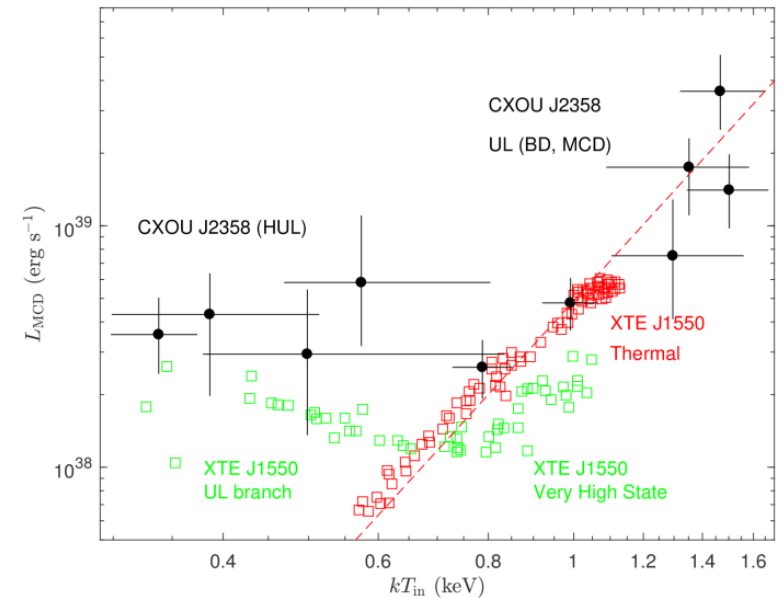
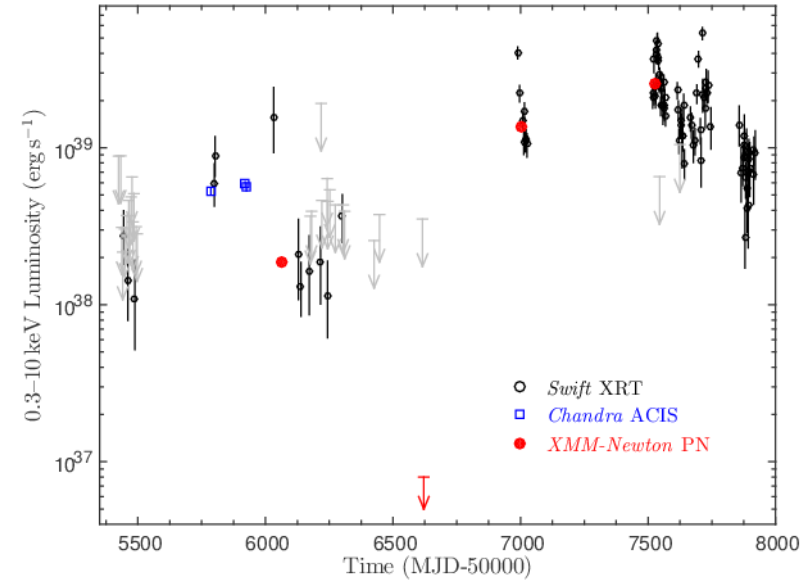
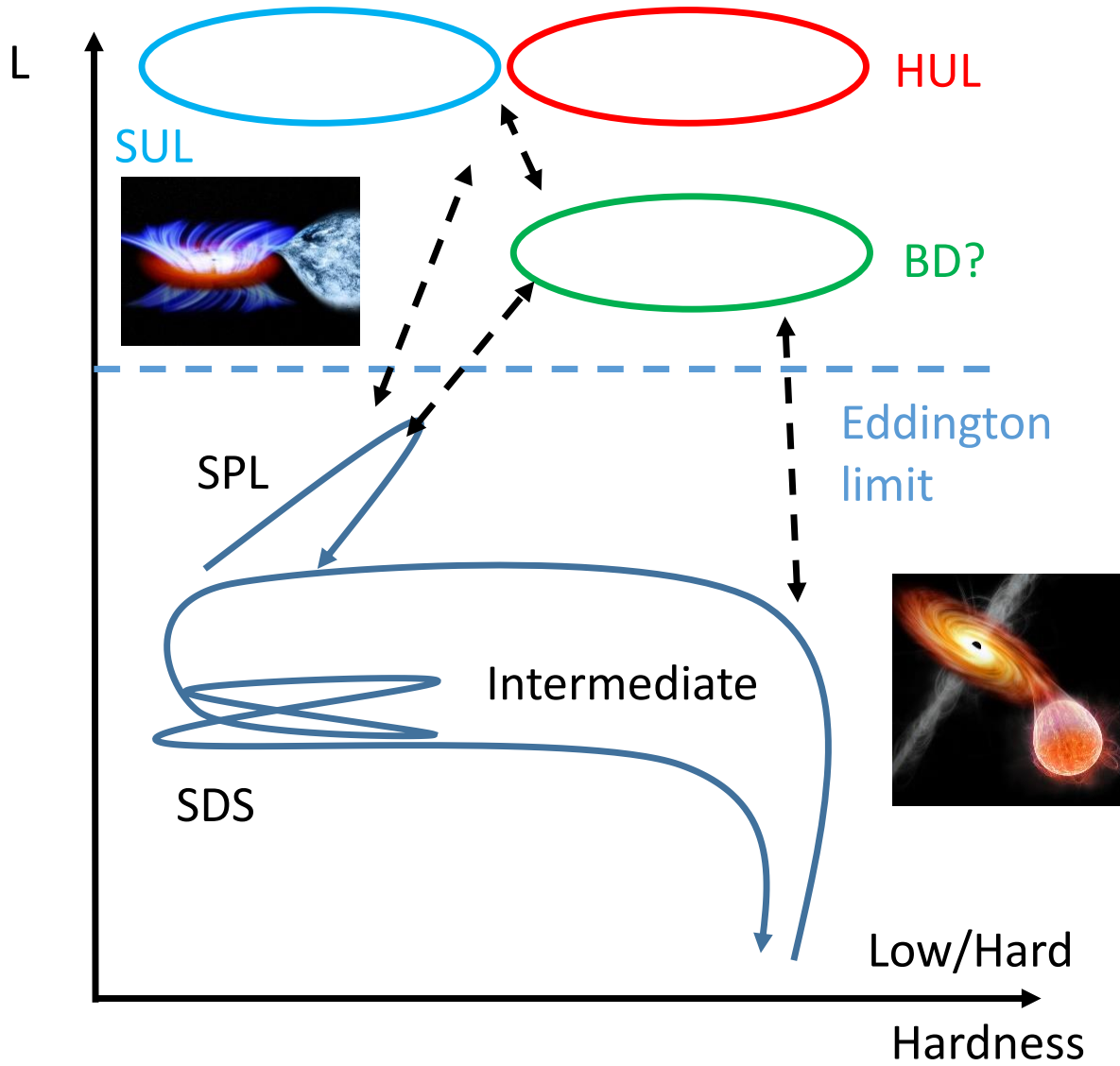


Weak Supernovae Induced by the Gravitational Energy Loss in the Black Hole Formation

- A explosion smaller than a normal supernova could be lunched when a black hole is forming inside a collapsing star. (Lovegrove et al., 2013; Nadyozhin, 1980)
- The light curve that similar to a Type-IIP SN can be used reveal the structure of the progenitor.
- A confirmation of a failed supernovae *N6946-BH1* found by Adams et al. (2017) to compare with.
- Progenitors with different structure, type and mass generated with (Takahashi et al., 2015).



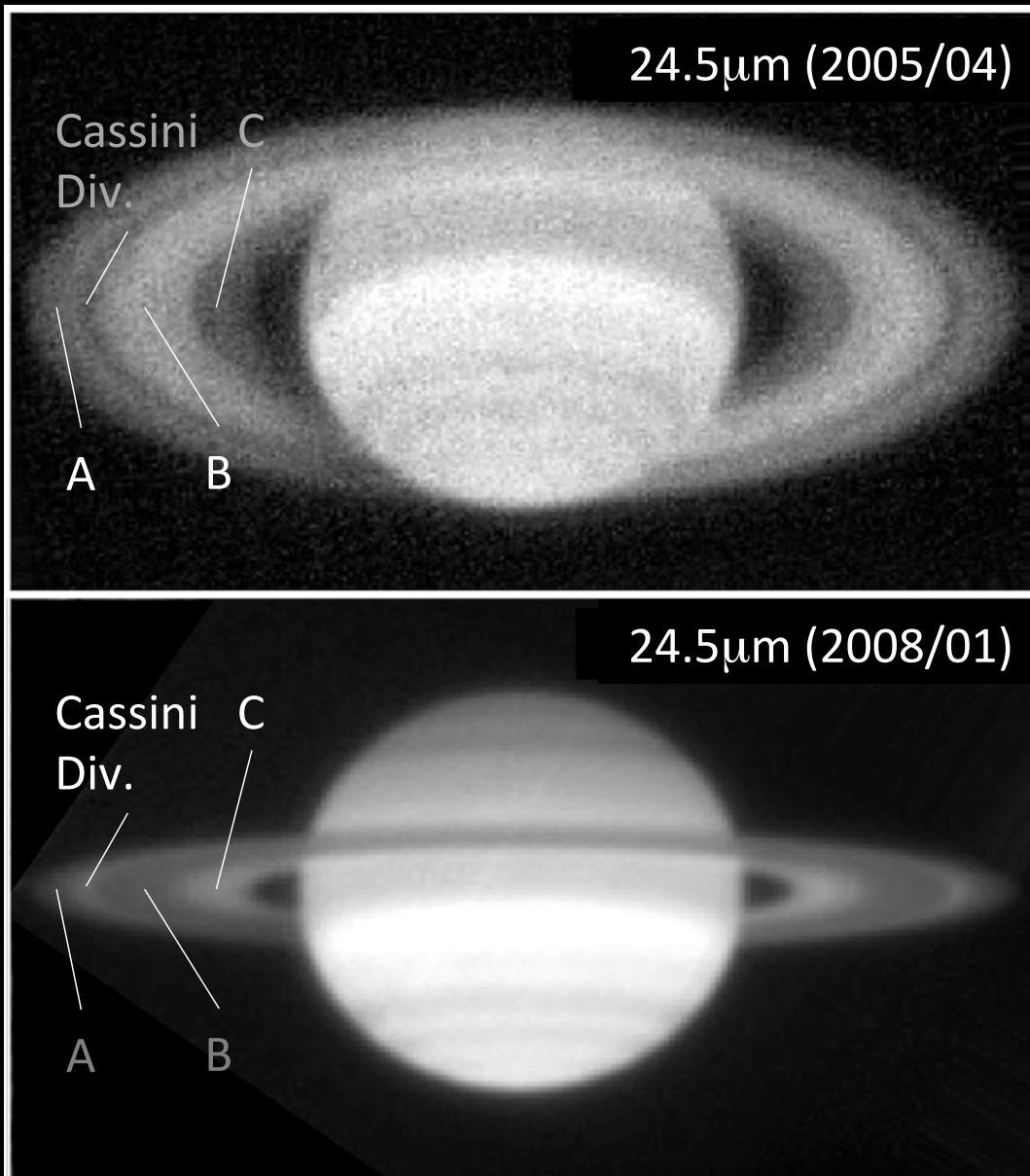
P3: Link between BHXBs and ULXs



$L > L_{\text{Edd}}$: The radiation pressure balances the inward gravitational force.

Seasonal variation of radial brightness contrast of Saturn's rings viewed in mid-infrared by Subaru/COMICS

(Fujiwara et al. 2017, A&A, 599, A29)



- Highest resolution ground-based views ever made in mid-infrared (MIR)
- Thermal emission from ring particles of Saturn
- Inversion of MIR brightness contrast of the rings between 2005 and 2008
- How the variation happens?
→ Please come to see P5

FROM THE PLANE OF THE SKY TO SPACE: THE PROBLEM OF DE-PROJECTION

*D.T. Hoai, P.N. Diep, P.T.T. Nhung, N.T. Phuong, N.T. Thao,
P. Tuan-Anh, P.Darriulat*

Dept. of Astrophysics, VNSC/VAST,
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Astronomy observations provide images on the sky plane. The task of the astronomer is first to reconstruct in space what the image is a projection of: one speaks of de-projection.

Then, but only then, it is to understand the physics mechanisms that describe what has been reconstructed in space.

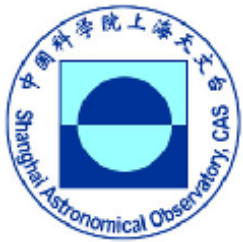
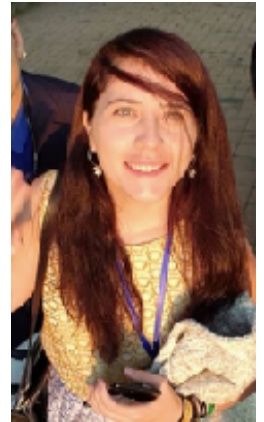
The present poster addresses the first of these two tasks.

Iulia Simion



Vasily Belokurov, Sergey Koposov
PhD (2016)
Institute of Astronomy, Univ. of Cambridge

topics:
Hercules Aquila Cloud with RR Lyrae
Bulge 3D density distribution with giants from VVV



Juntai Shen (SHAO), Chao Liu (NAOC)
LAMOST postdoctoral fellow (May 2016 - current)
Shanghai Astronomical Observatory, CAS, China

Currently:

Using **SLAM** (Zhang et al. in prep) for stellar parameters determination for LAMOST trained on APOGEE - code **running**, final catalog later this month

Future:

Age determination for LAMOST+APOGEE giants in the Disc: isochrone fitting/ [C/N] abundance ratio

—Objectives—

- measure the **radial** and **vertical metallicity distributions** at every evolutionary stage to test the inside-out Galaxy formation scenario
- infer the kinematic and dynamical properties of the Galactic Disc
- provide constraints on radial mixing
- comparison of data to galaxy formation simulations

Gas Kinematics within the Filamentary cloud IC5146: Does Magnetic Field Regulate the Gas dynamics?

Jia-Wei Wang, Shih-Ping Lai, Tao-Chung Ching, Doug Johnstone, James Di Francesco, and Graham Bell

Main Filament

Poster No. 10

