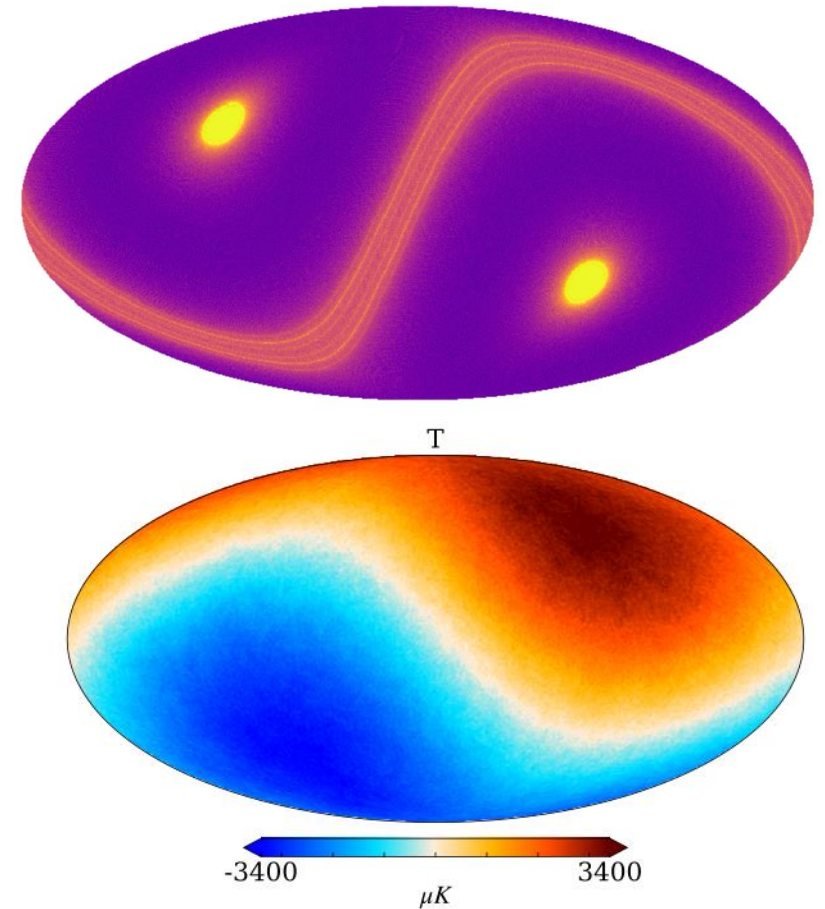
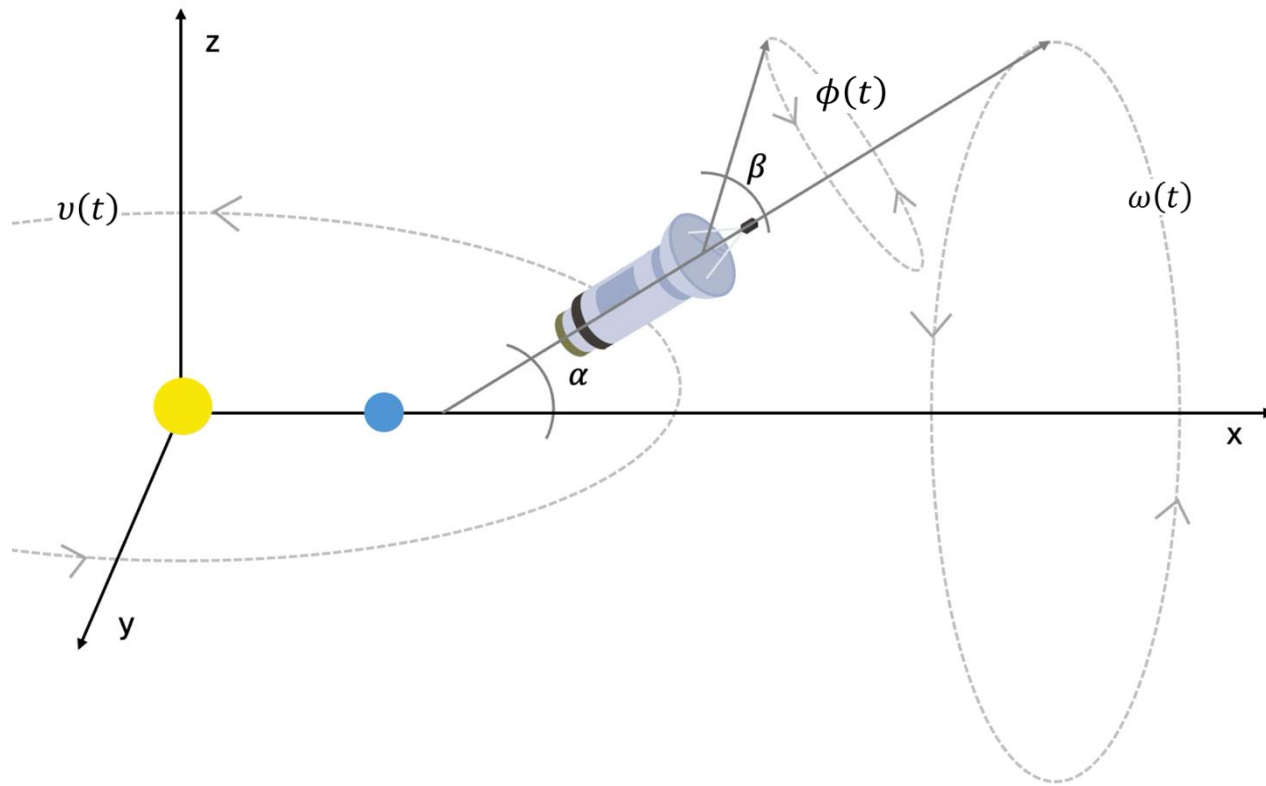
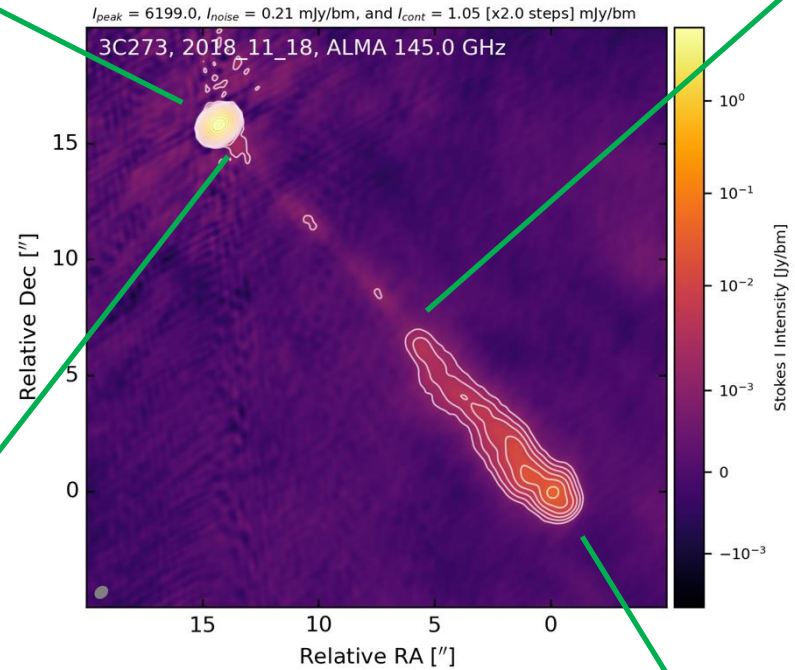
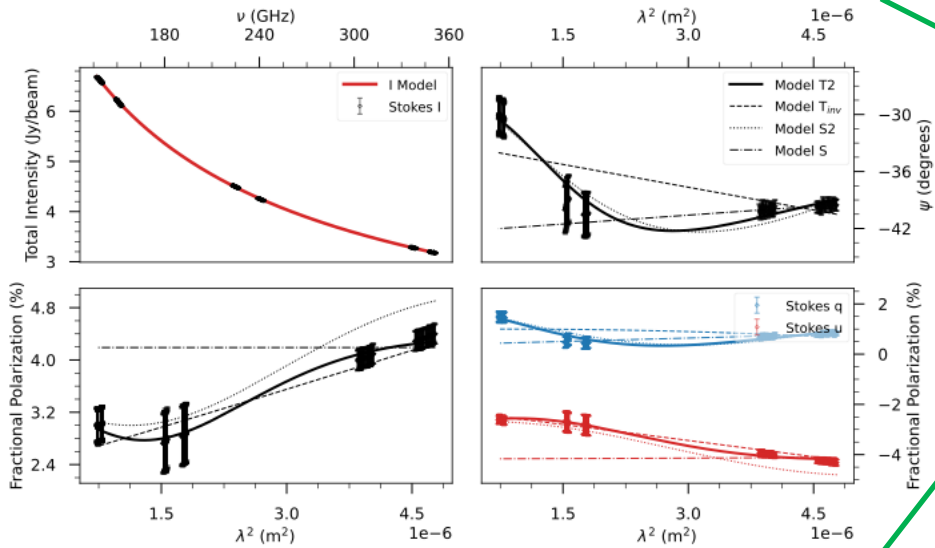


Scanning Strategy Optimisation for Next-Generation CMB Experiments

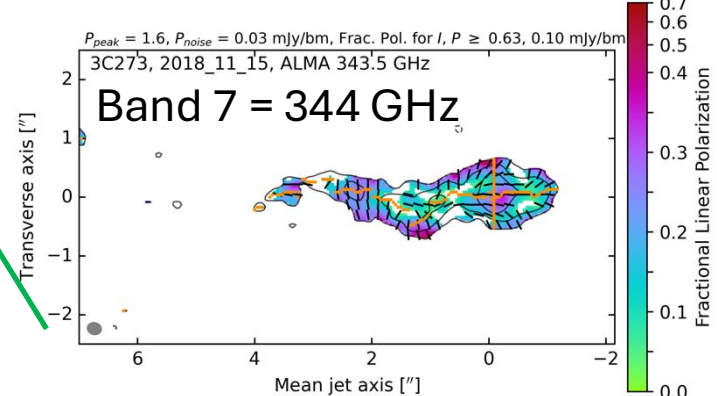
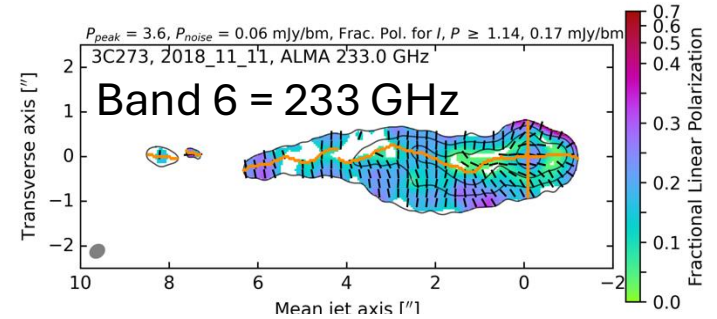
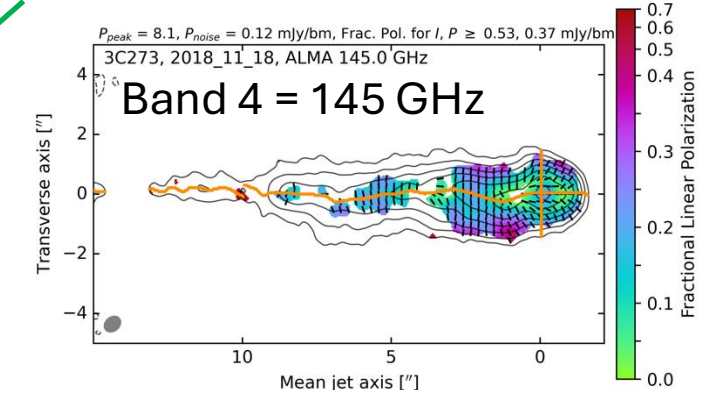


$$\mathbf{R}(v(t), \omega(t), \phi(t), \alpha, \beta, \eta, \zeta, \psi) = \mathbf{R}_z(v(t))\mathbf{R}_x(\omega(t))\mathbf{R}_y(\pi/2 - \alpha)\mathbf{R}_z(\phi(t))\mathbf{R}_y(\beta)\mathbf{R}_z(\eta)\mathbf{R}_y(\zeta)\mathbf{R}_z(\psi)$$

Polarization in the unresolved core



Polarization of the kpc-scale jet



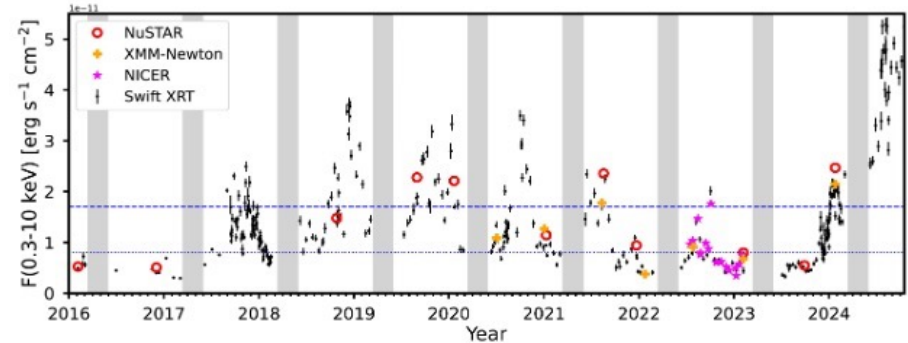
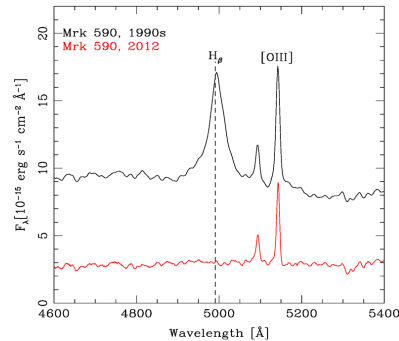
See also Britt Jeter's talk about 3C273 with the Event Horizon Telescope on Thursday!

Now you see me, now you don't! – A new angle on black hole accretion



M. Vestergaard^{1,2}, D. Lawther², G. Walsh², S. Raimundo^{2,3}, J-Y. Koay⁴, B.M. Peterson⁵, X. Fan¹

Mrk 590



A Fast Framework for Robust Decomposition of Quasar Spectra



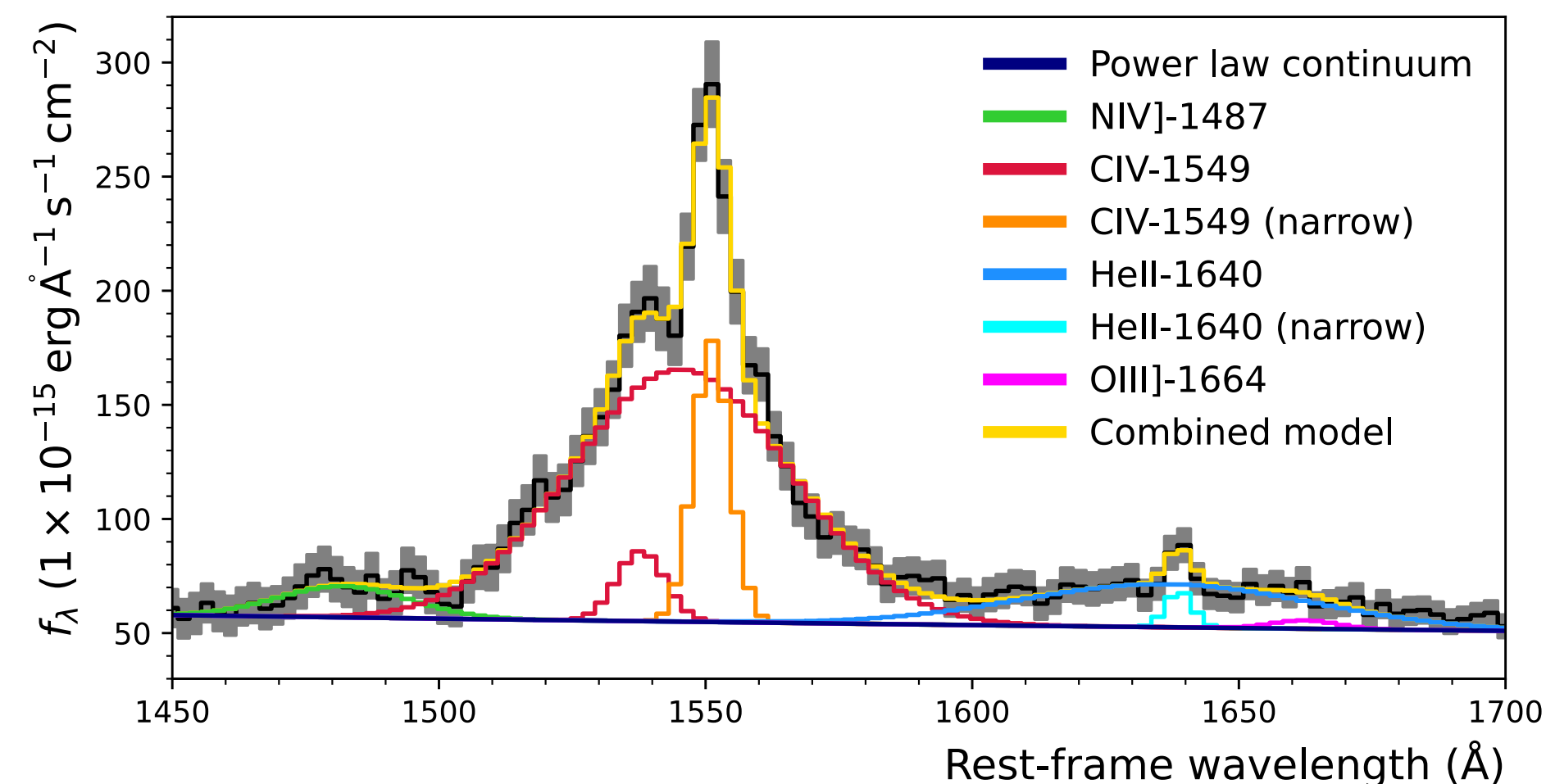
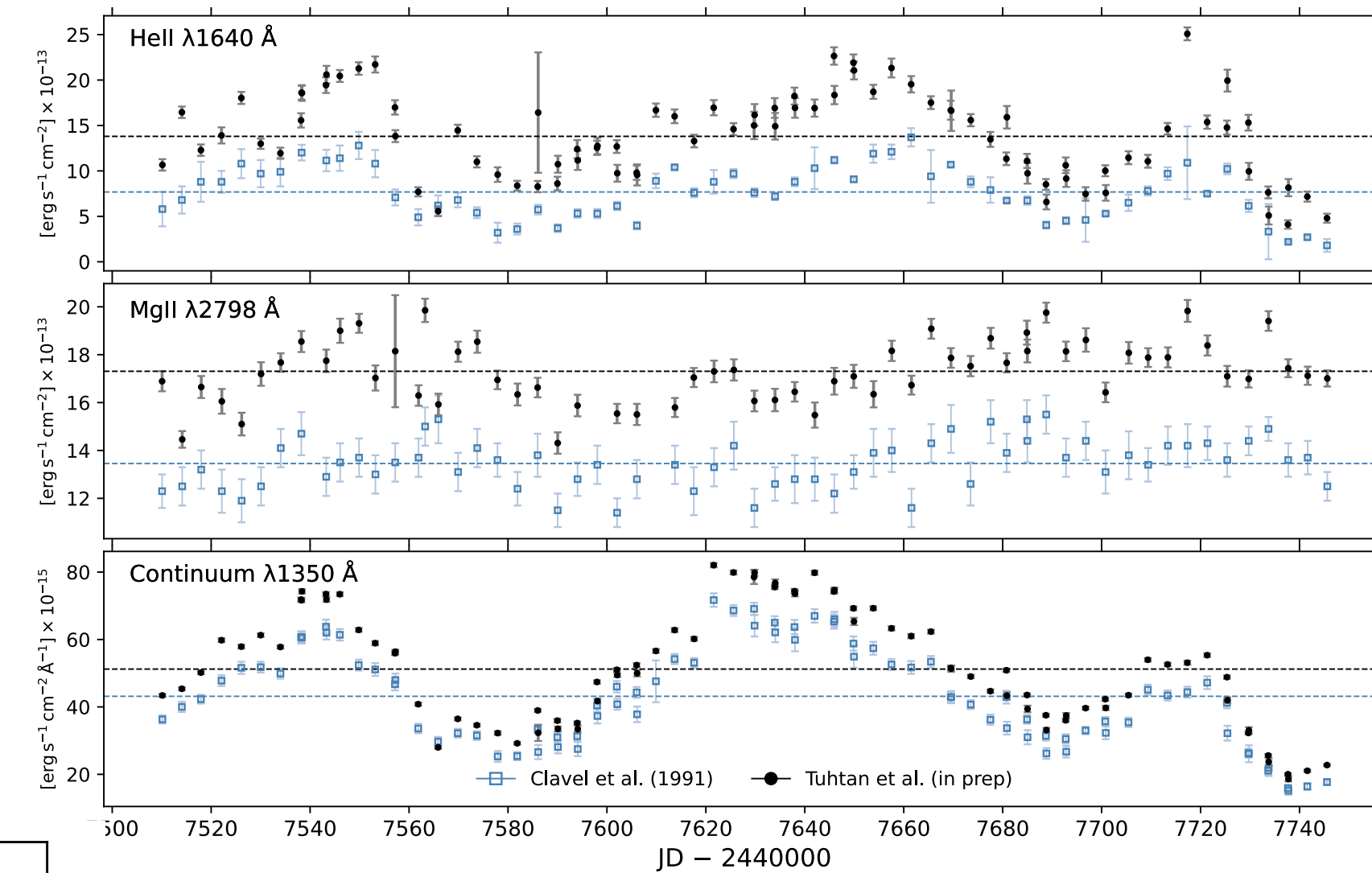
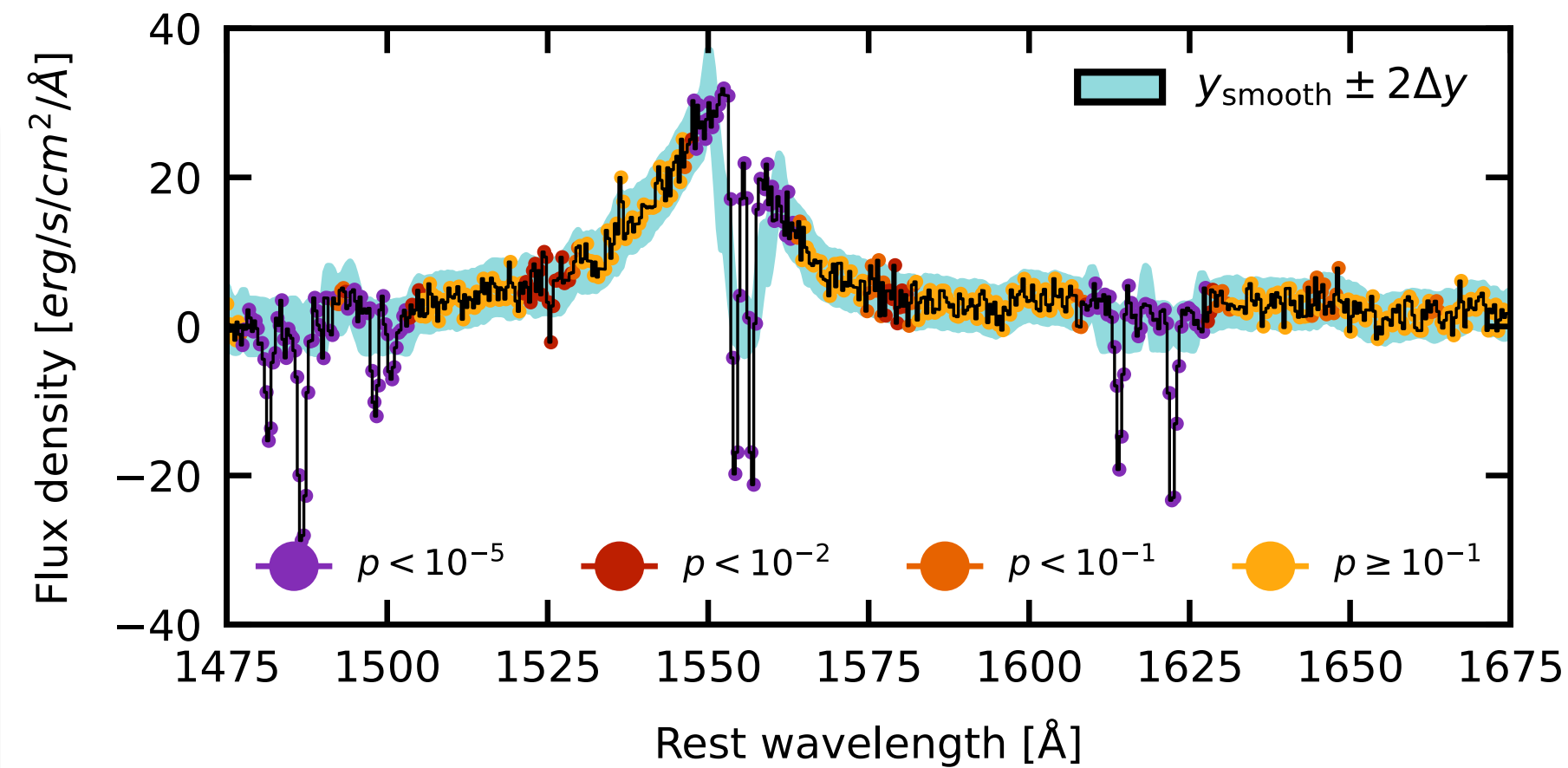
Liam de Búrca, Research Assistant, DARK, Niels Bohr Institute, University of Copenhagen

Data preparation *Setting up downstream modelling processes*

Modelling *Currently supported models and how they're adapted and combined effectively*

Uncertainties *Quick and user-friendly estimation of uncertainties*

Pipeline & Utilities *Infrastructure that supports code reliability as well as the researcher and developer*

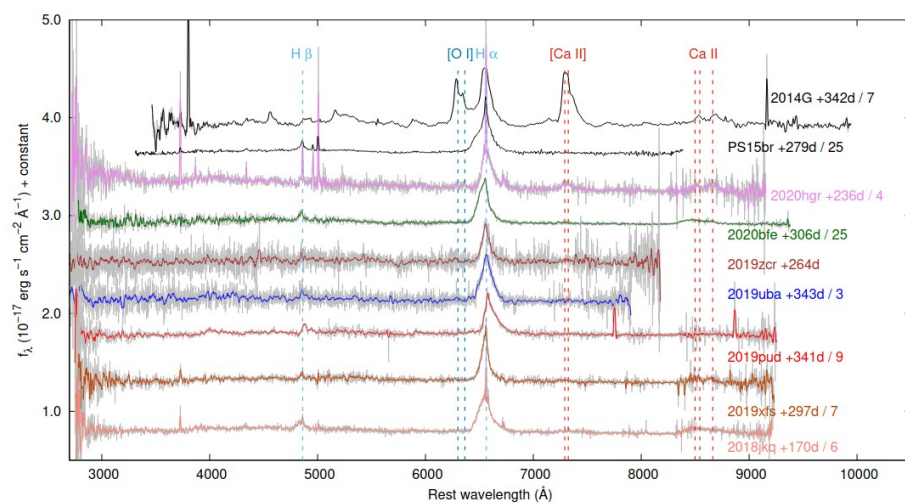
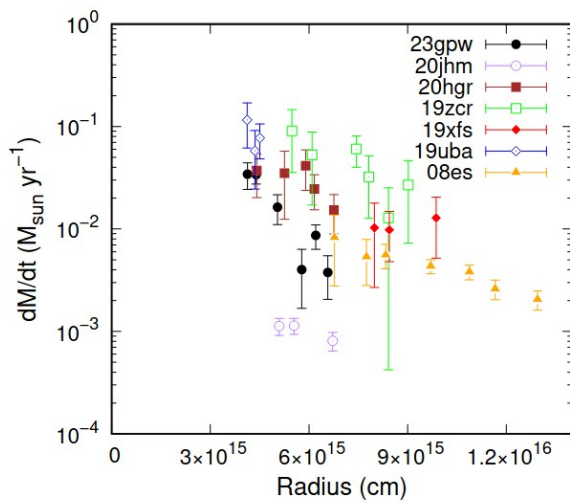
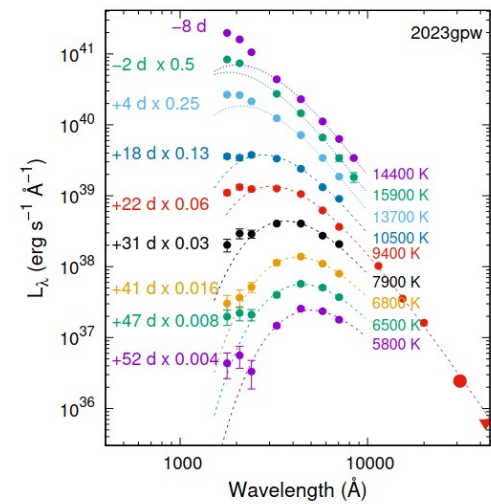


Science Applications

Photoionisation modelling of NGC 5548

First-look pipeline for 4G-PAQS

Constraints on circumstellar matter in hydrogen-rich superluminous supernovae



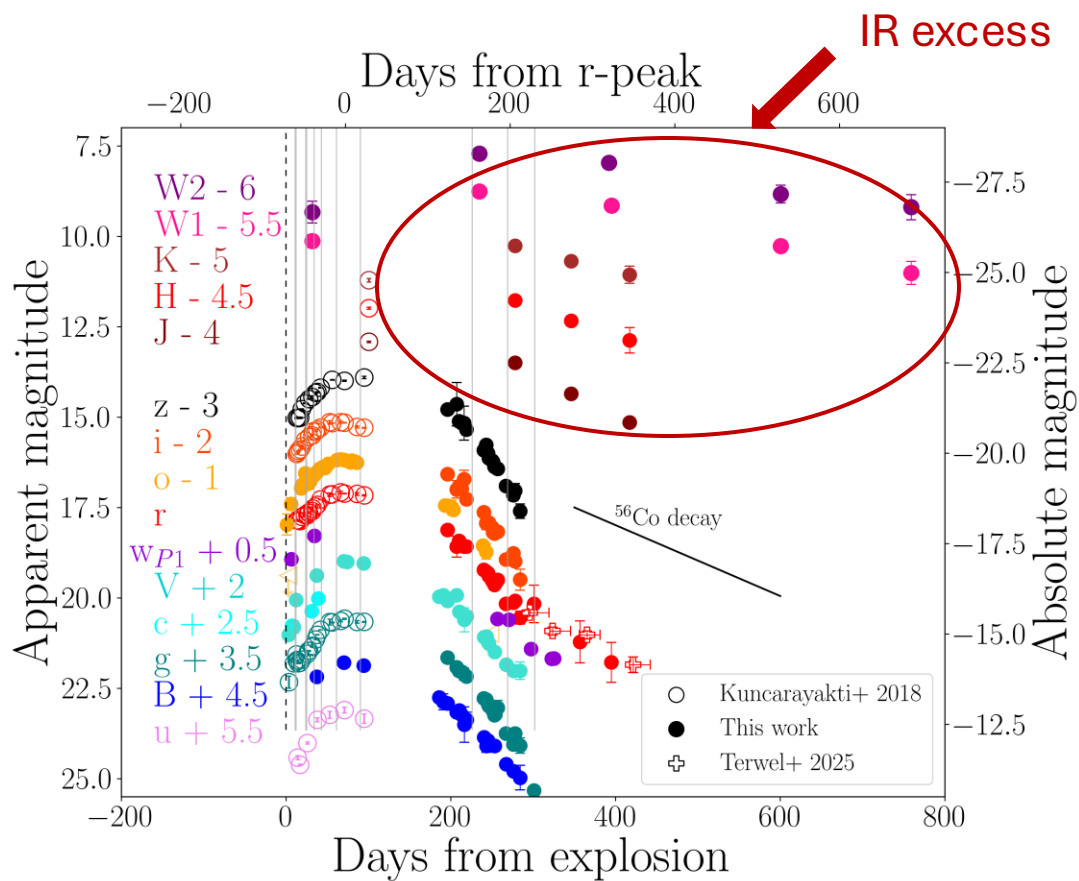
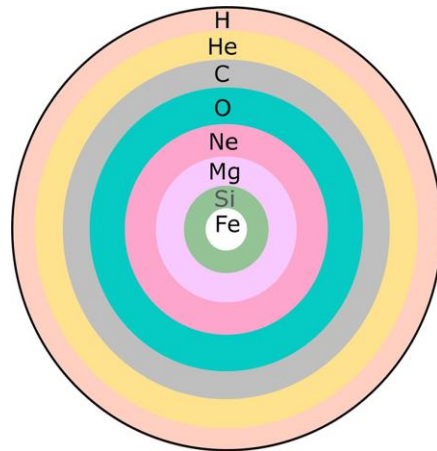
• UV excess \rightarrow dM/dt

• CSM asymmetry

SN 2017dio:

Type Ic interacting with H-rich CSM

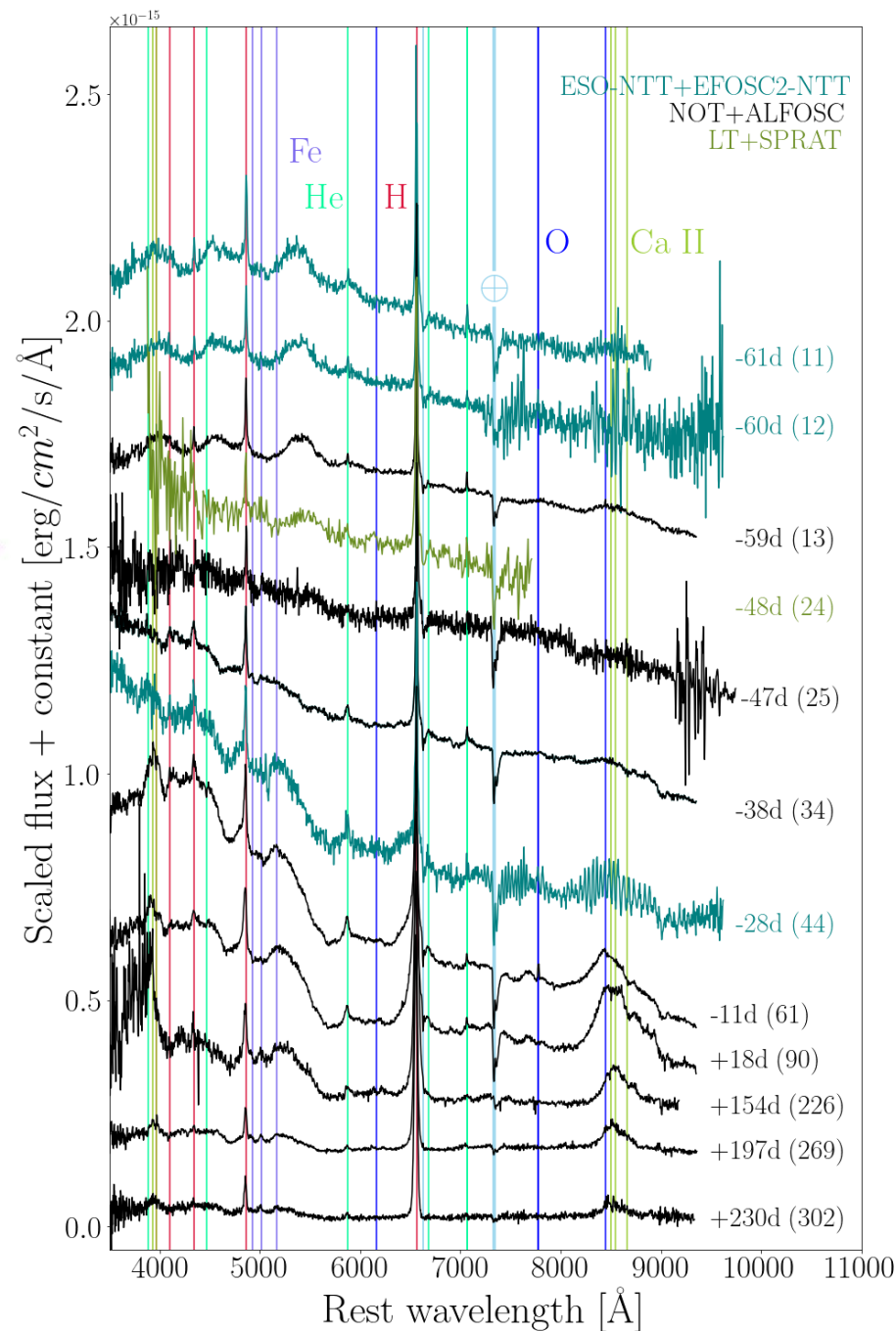
Christina Humina,
University of Turku
jahumi@utu.fi



Ic spectra
+ narrow
emission
lines

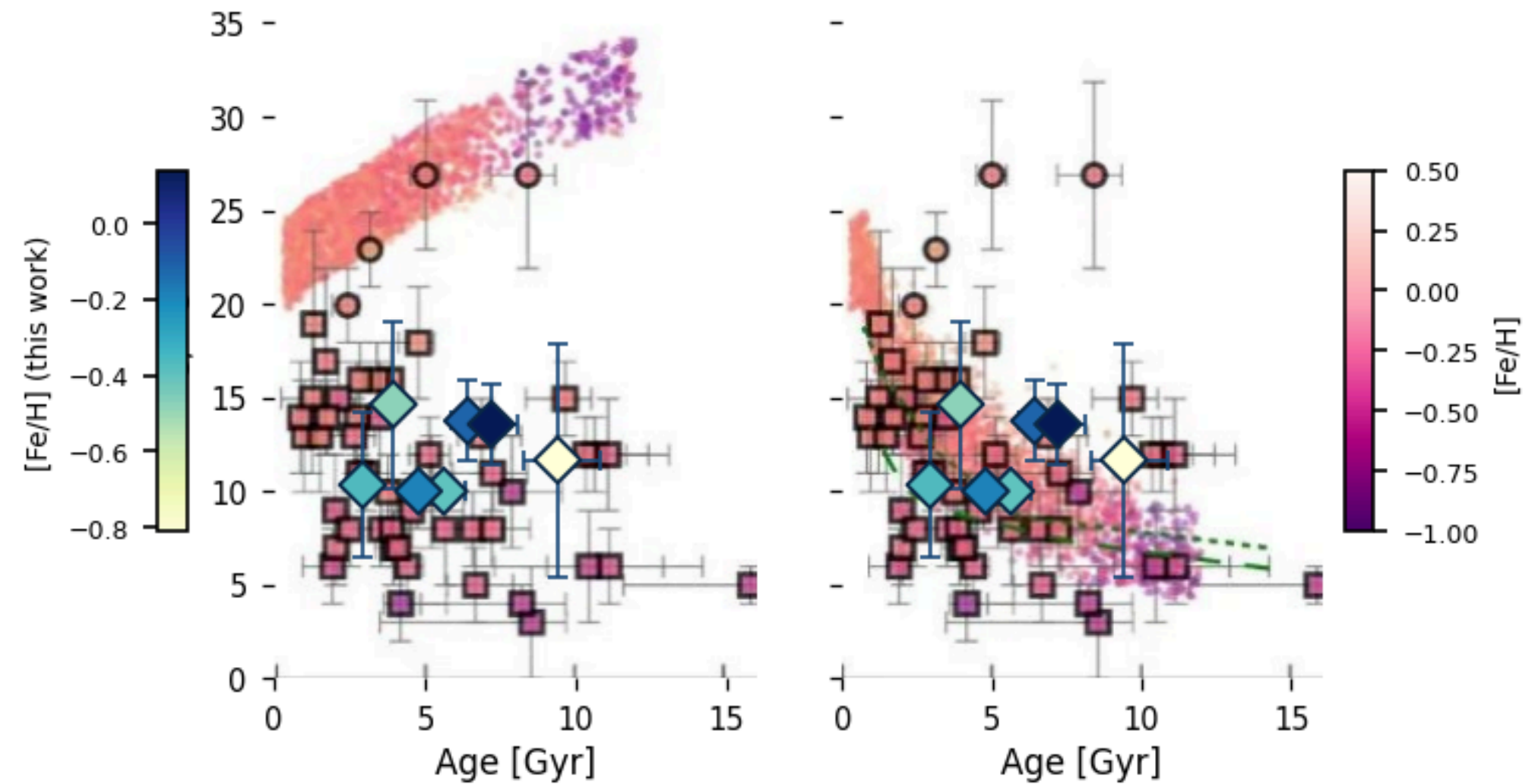
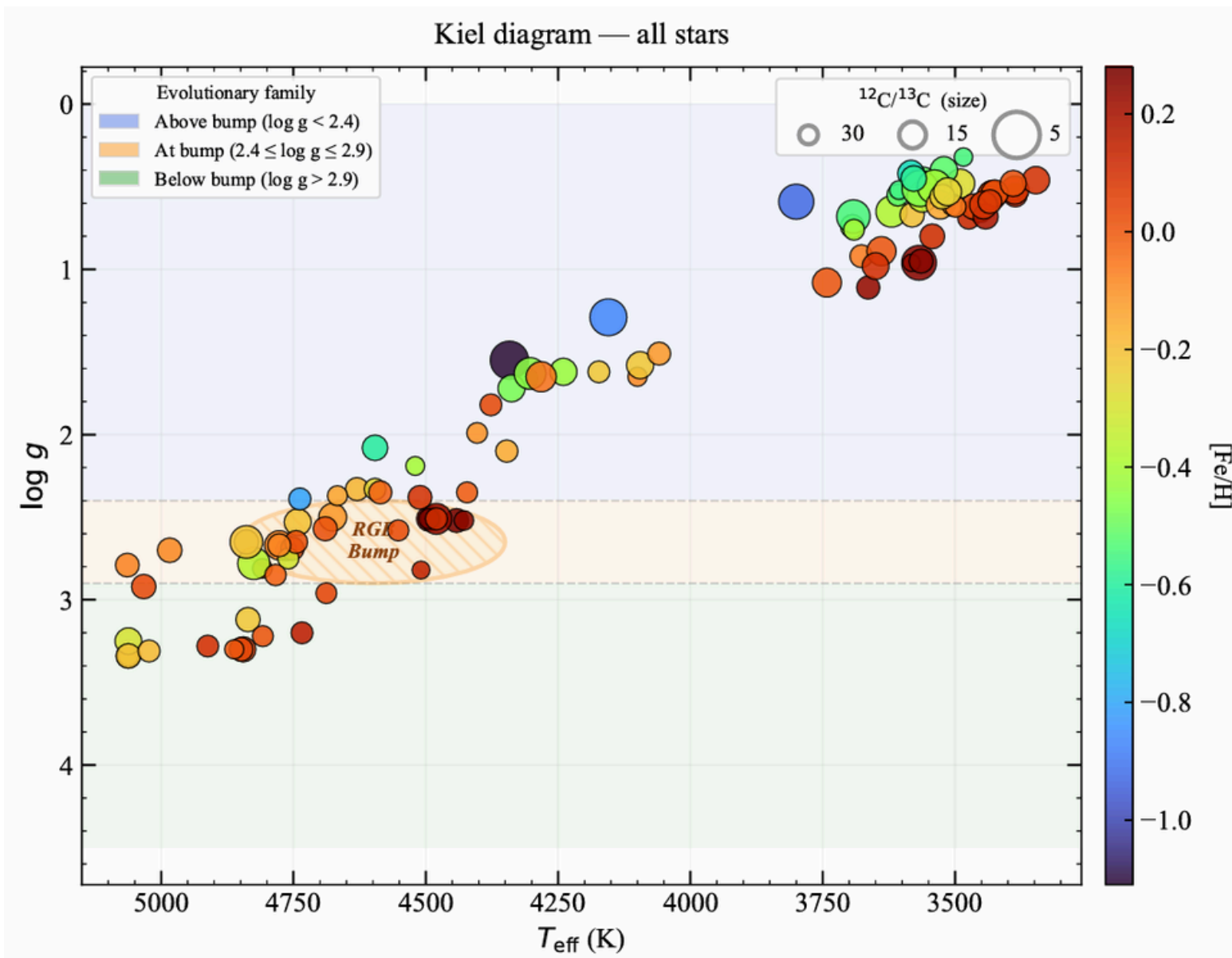
Interaction
starts to
dominate

Type II_n
spectra

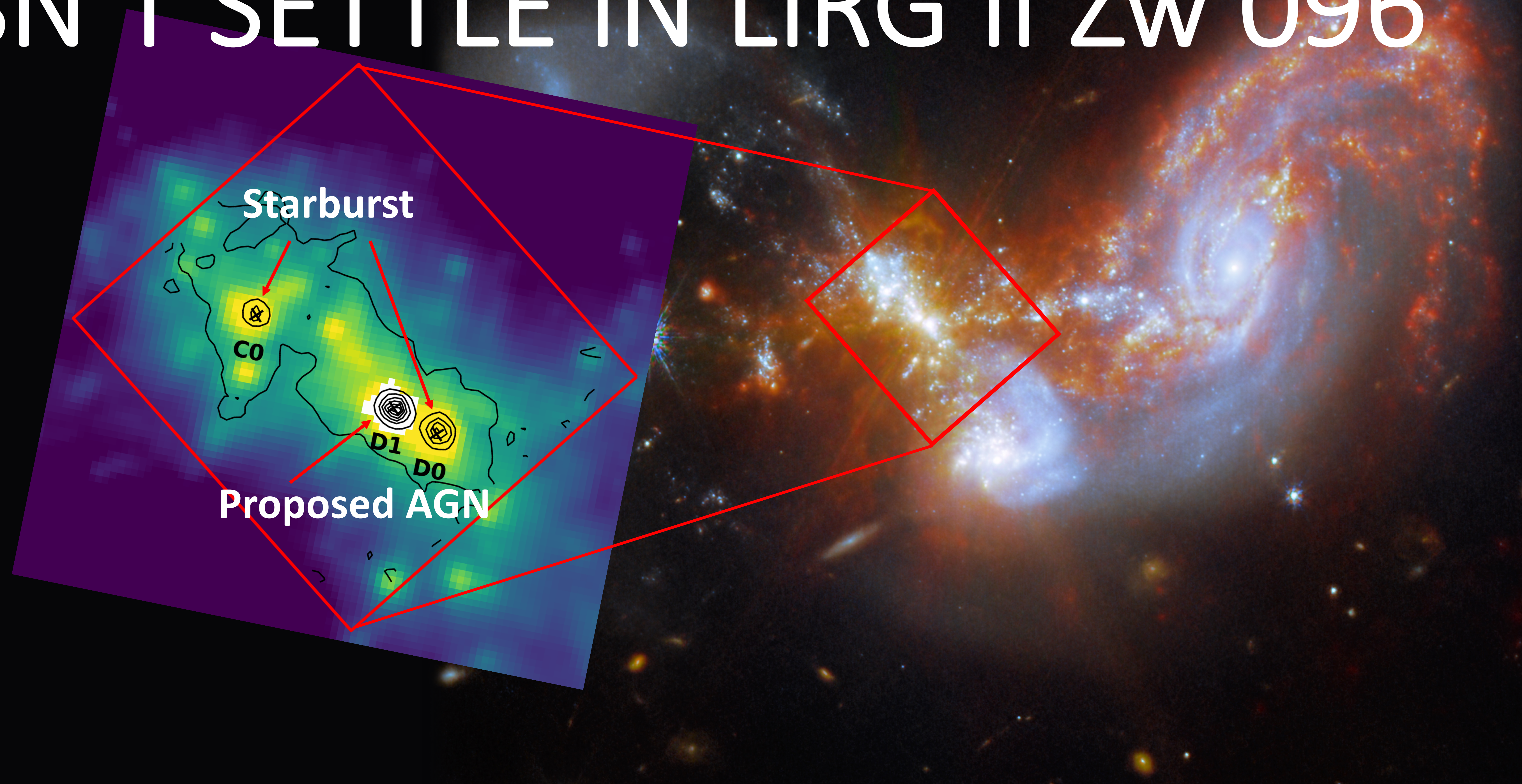
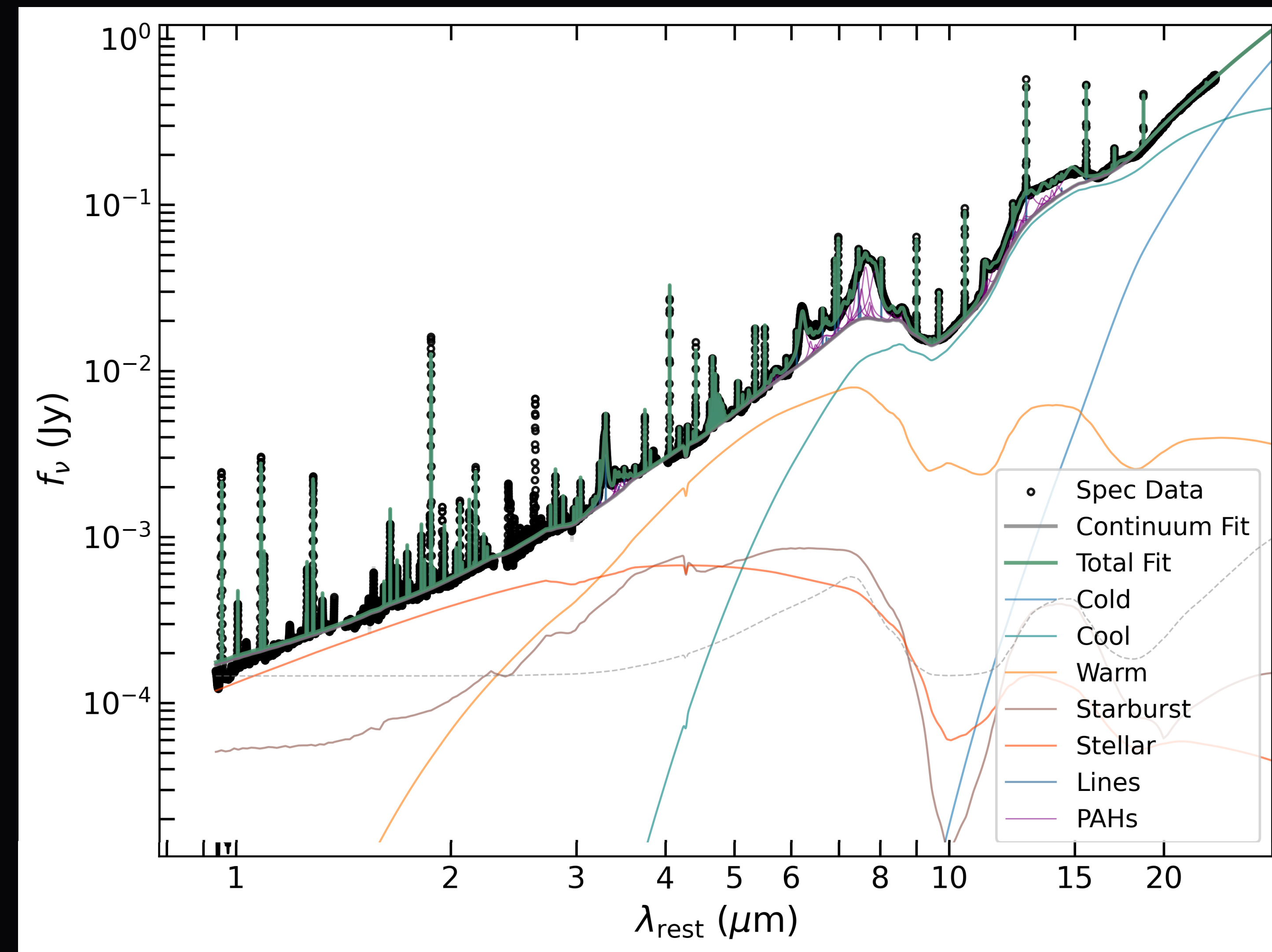


Molecular Clocks in Giant Stars: Using the $^{12}\text{C}/^{13}\text{C}$ Ratio of K and M Giants as an Evolutionary Stage Indicator

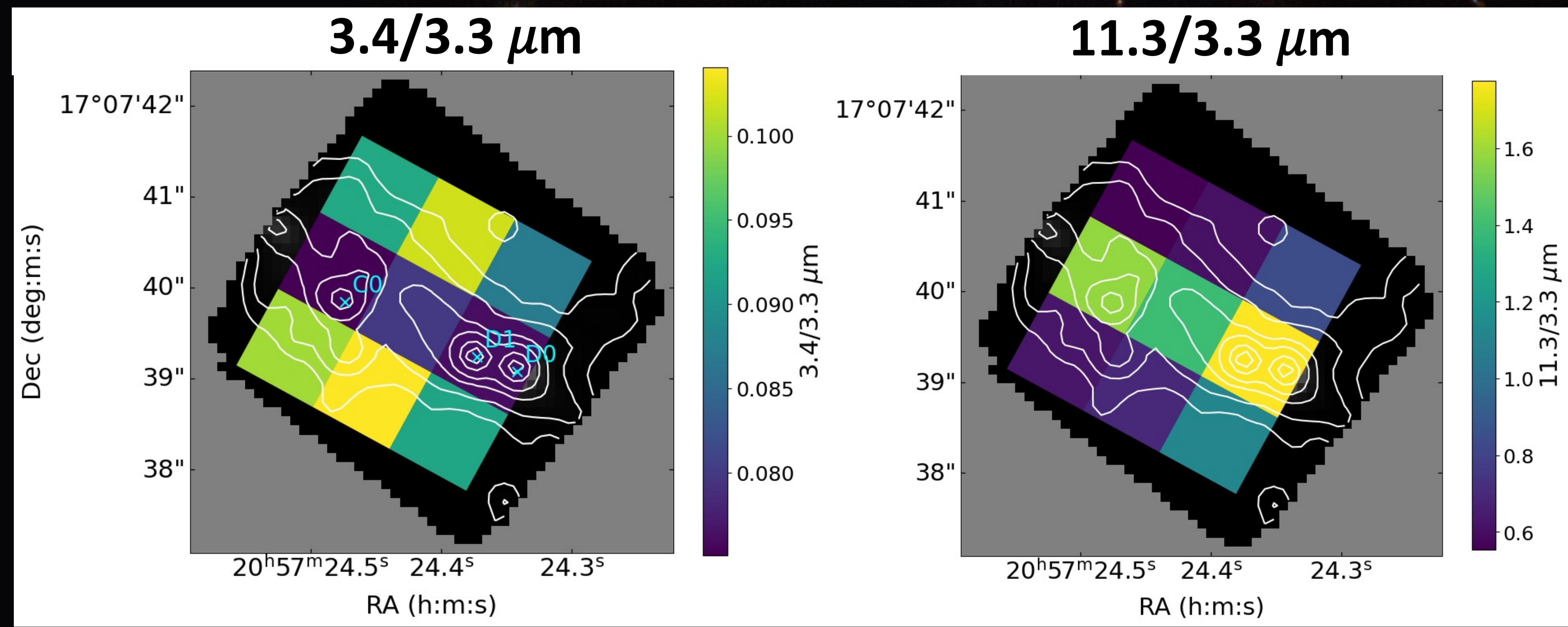
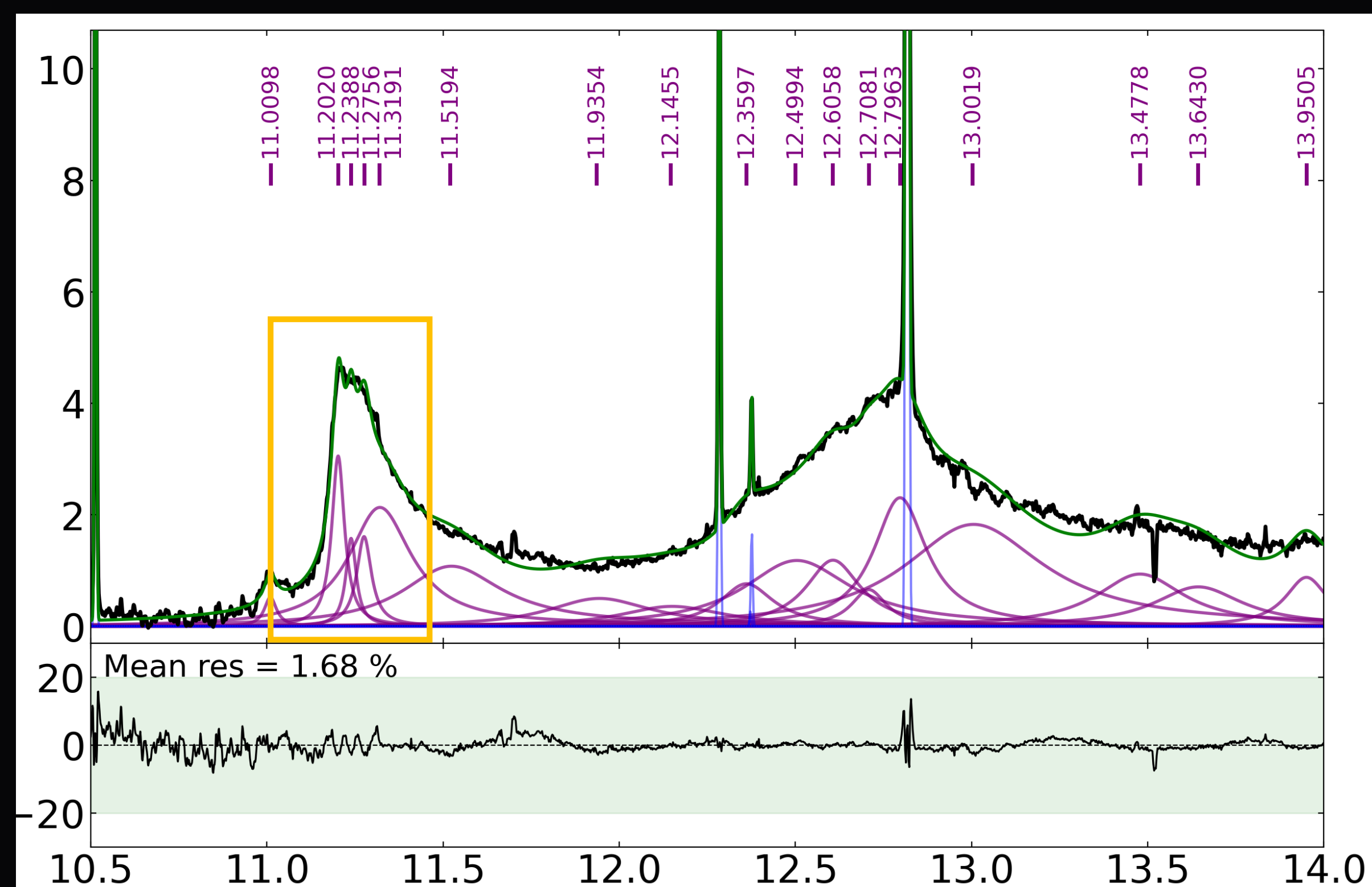
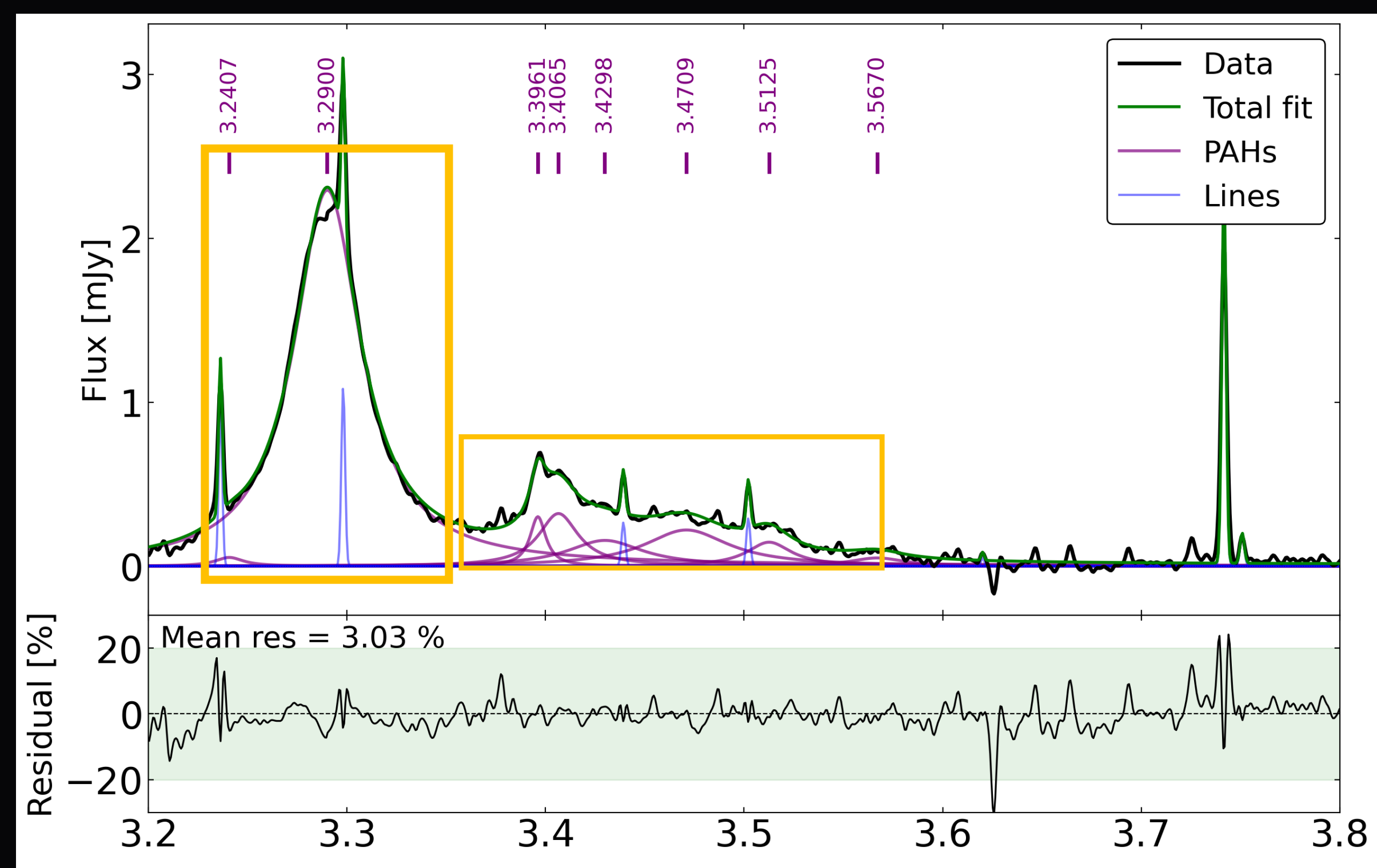
Smaragda Vidali, MSc student



THE DUST DOESN'T SETTLE IN LIRG II Zw 096



Decomposition using CAFE and PAHs features from PDRs



Lower aliphatic to aromatic content towards extreme environments!

Smallest nanograins are larger towards extreme environments!



Gustav Olander (Ph.D student)
 Mail: gustav.olander@chalmers.se
 A&A accepted 2026-05-18

Knut and Alice Wallenberg Foundation

