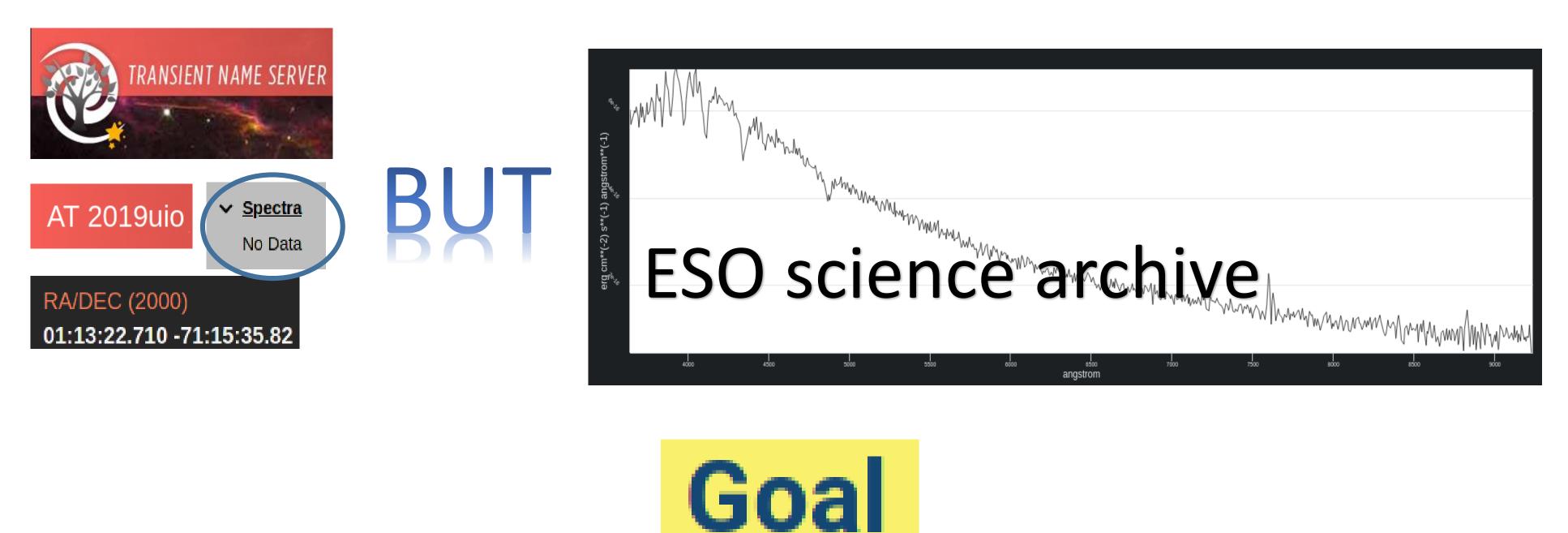
Transient characterization using the Virtual Observatory

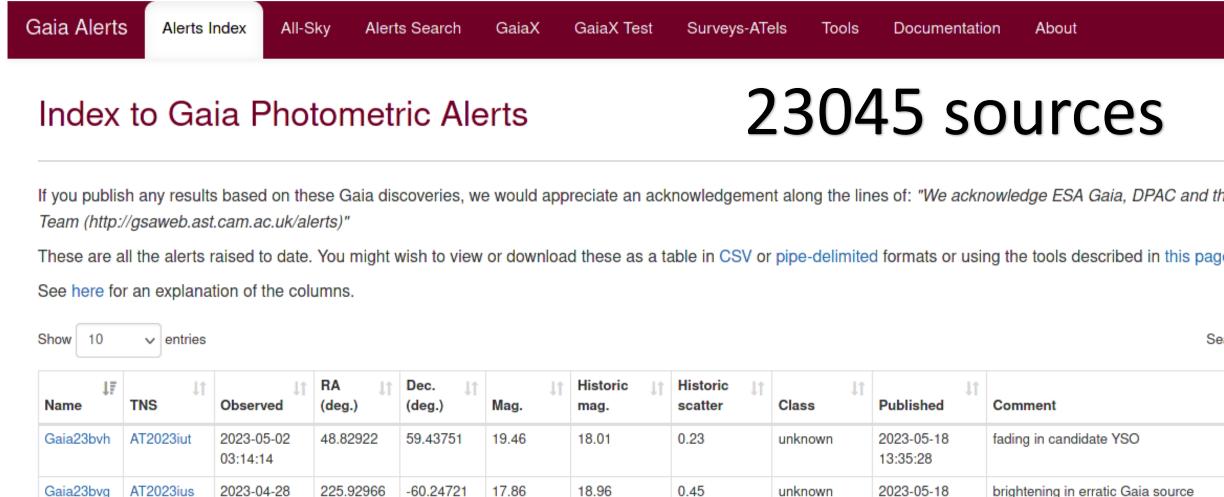
Introduction

- Transients can be defined as astrophysical phenomena whose duration is significantly shorter than the typical timescale of the stellar and galactic evolution. Supernovae, novae, gamma-ray burst,..., are some examples of transient events.
- Fast, multiwavelength follow-up observations are often required to properly understand the true nature of the transient.
- Looking for information in astronomical archives can be a complementary approach but, sometimes, these searches are not conducted in an optimal way.

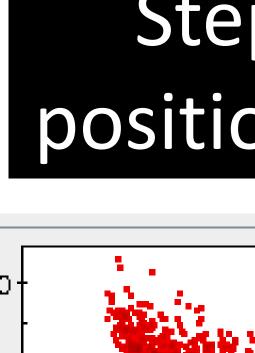


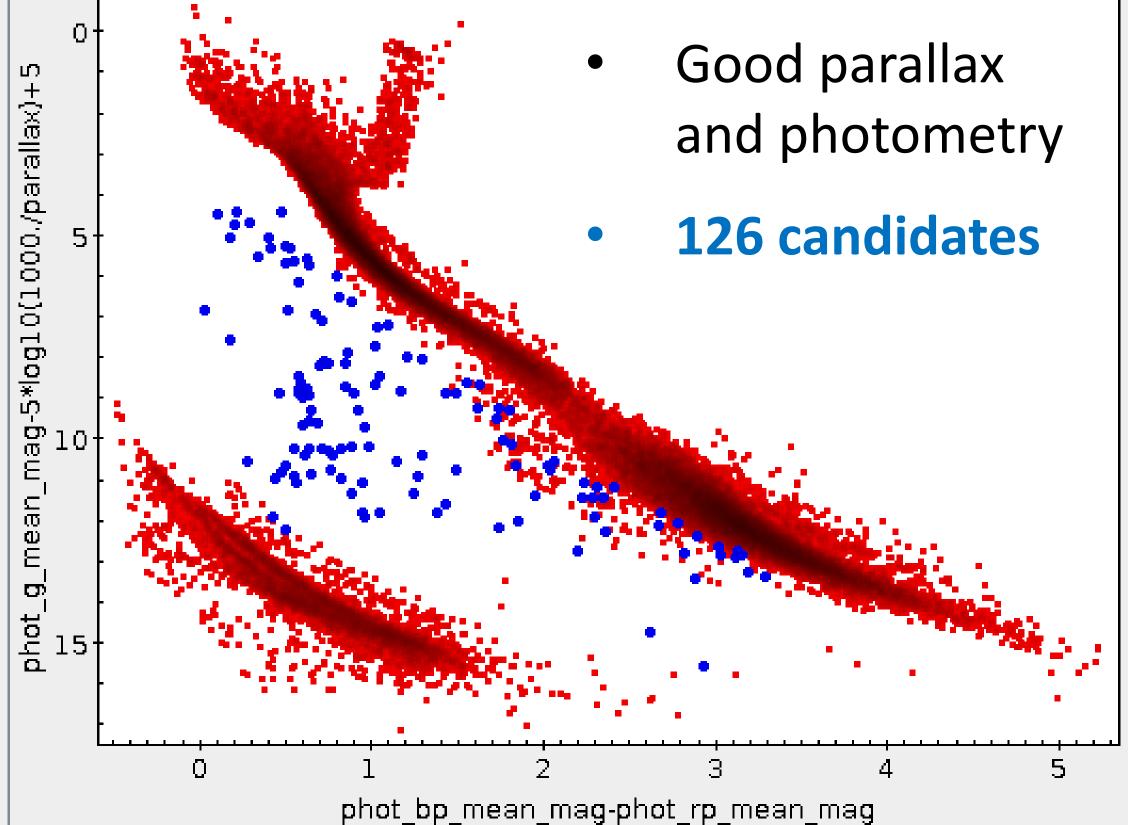
Use the opportunities the Virtual Observatory offers in terms of discovery, access and analysis of astronomical data to improve this approach. an automated workflow to validate and characterise candidate Build Cataclysmic Variables (CVs) identified among the Gaia Science Alerts.

12:24:15

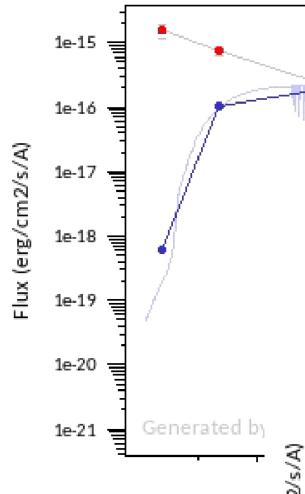


		Sea
1	↓† Published	Comment
	2023-05-18 13:35:28	fading in candidate YSO
	2023-05-18 13:30:02	brightening in erratic Gaia source







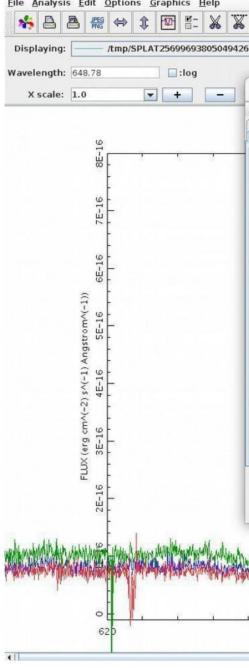


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- b. Centro de Estudios de Física del Cosmos de Aragón (CEFCA). Teruel, Spain
- c. Real Instituto y Observatorio de la Armada.San Fernando, Spain

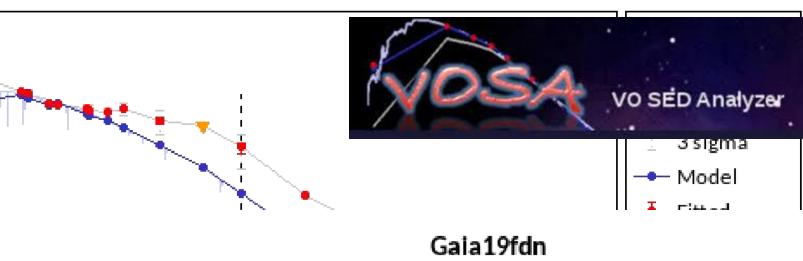
Step #1: Selection by position in the HR diagram

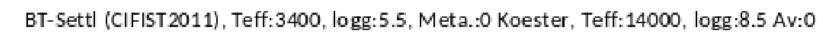


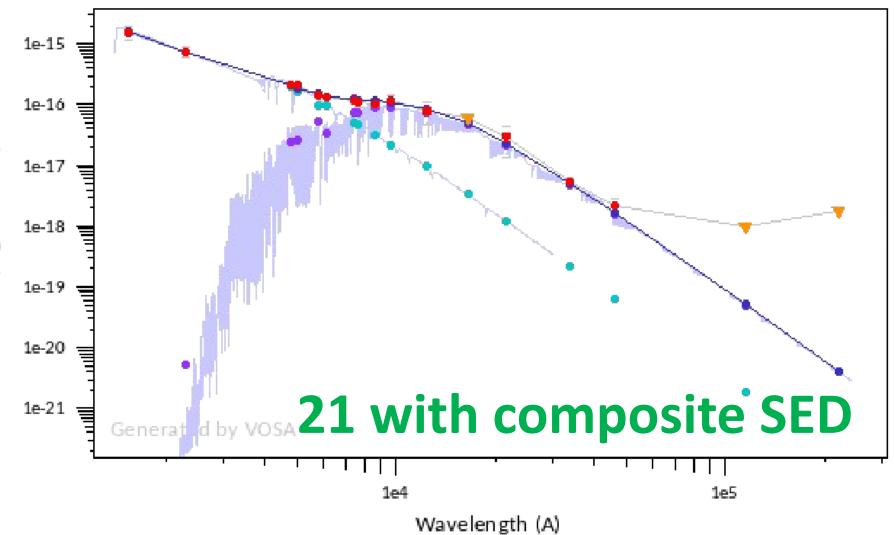


Step #3: Composite SED

Gaia19fdn Koester WD models, Teff:6750, logg:6.5









Step #2: Emission in Halpha

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Look for spectra in VO archives. Identify Halpha emission. 53 with spectra (18 with Halpha emission)

What's next?

- Identification of new candidates in the daily searches.
- Spectroscopic follow-up of the most promising candidates.
- Exploration of other alert systems with many more candidates (e.g. ZTF).

