OSCARS
Open Science Clusters' Action for Research & Society

Gaia All-Sky Parameters for Stars (GASPS)

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Implemented by

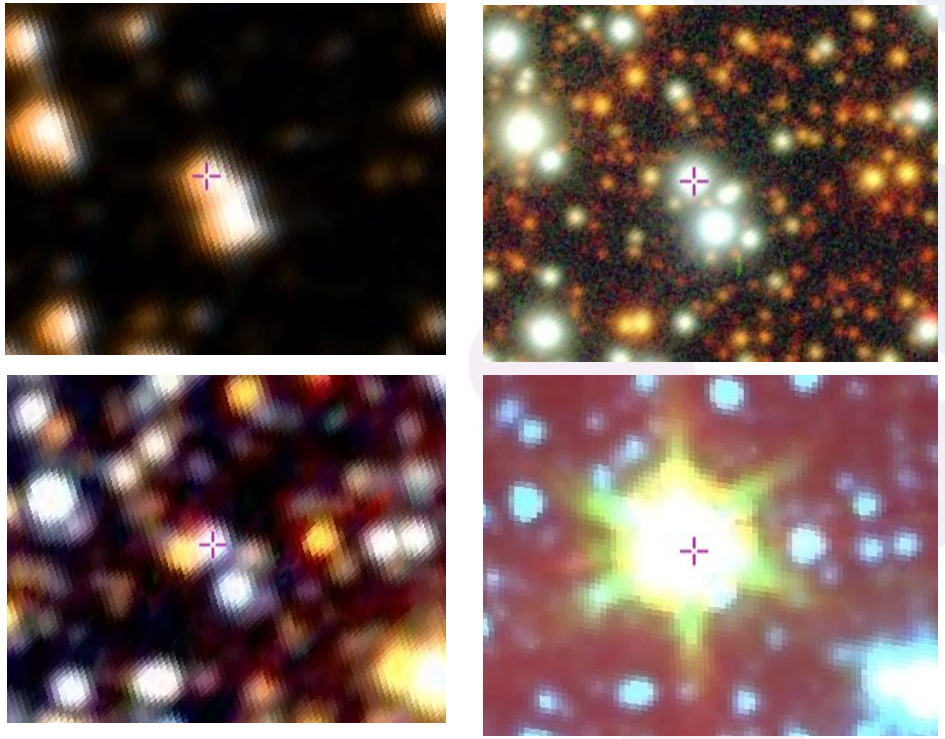
MANCHESTER 1824
The University of Manchester

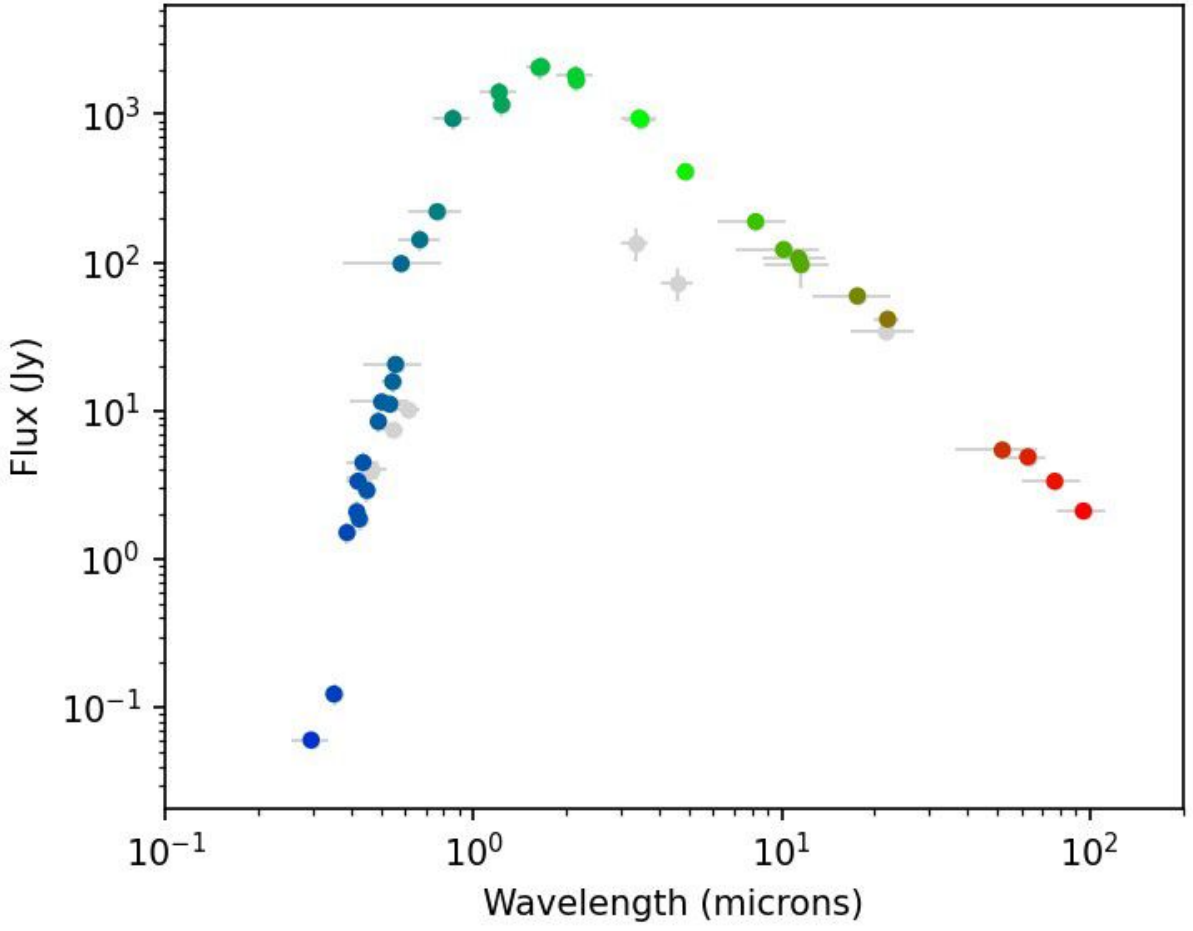
ACRI ST

Funded by the European Union

CHALLENGE ADDRESSED

- Astronomers need fundamental properties of stars (e.g. temp., luminosity).
- These can't come directly from observations, but need modelling.





SOLUTION

OSCARS

- We previously developed the

Python Stellar Spectral Energy Distribution (PySSED) package

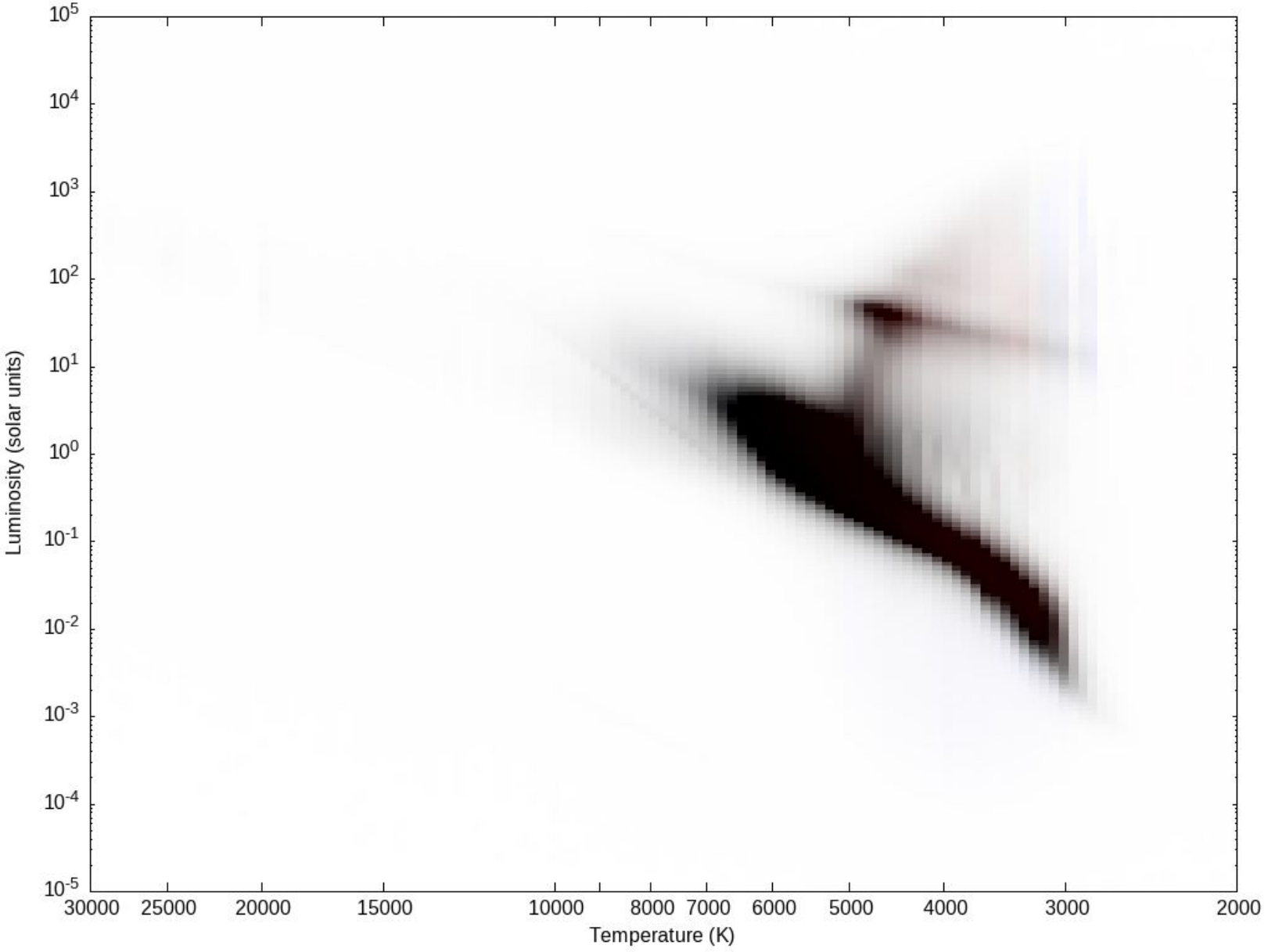
which determines temperatures, radii and luminosities of stars based on observations of their brightnesses in different astronomical surveys.

- These surveys are hosted on Virtual Observatory repositories (CDS@Strasbourg) that are already part of OSCARS.

- We have run PySSED across the entire sky, testing 1.8 billion stars.

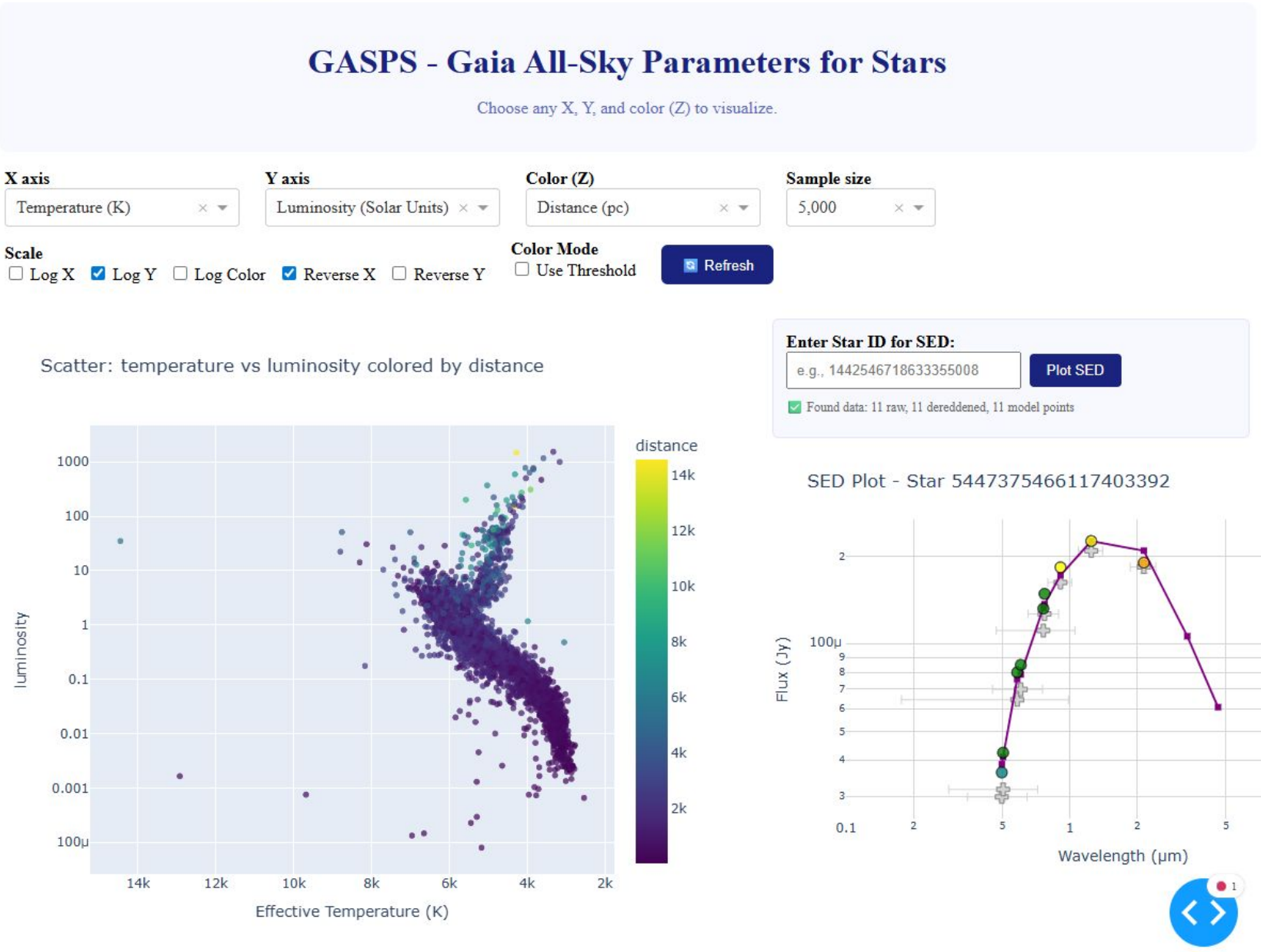
- We have measured accurate parameters for ~237 million stars.

RESULTS



- Primary catalogue complete.
- Working on data analysis.
- Data will be published and made available through CDS@Strasbourg.

RESULTS



- Partner team at ACRI-ST is developing an online visualisation service.
- Currently beta testing.

- To be deployed at ACRI-ST.
- Exploring use of EOSC cluster and ESA Datalabs.

University of Manchester

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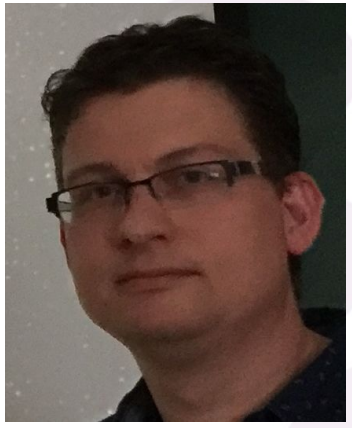
Nick Cox



Jeronimo Bernard-Salas