

From virtual **SNAQs** to hands-on **Observational Schools** in ChETEC-INFRA

Andreas Korn

together with

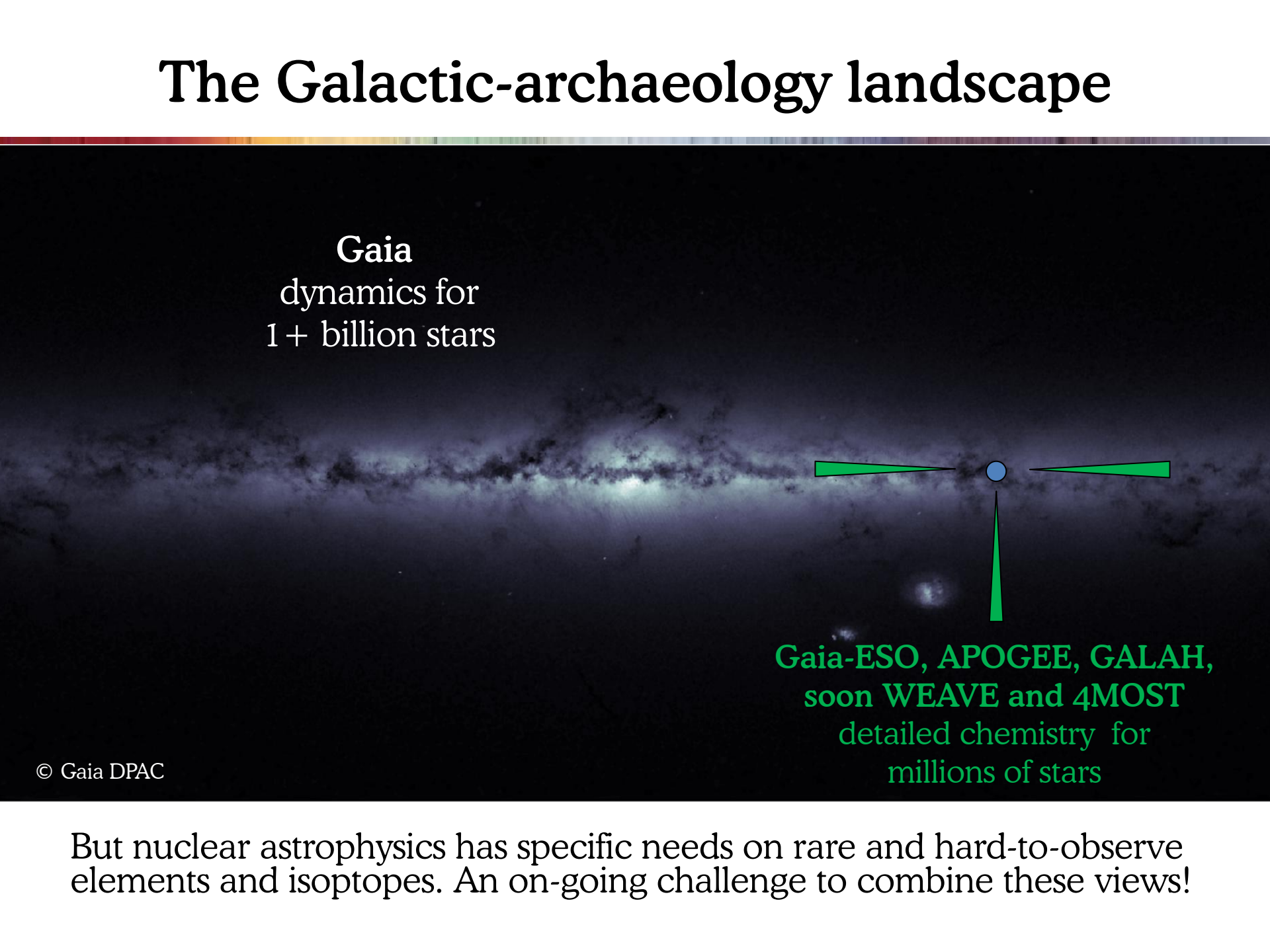
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Moletai Observatory, Lithuania

The Galactic-archaeology landscape

Gaia
dynamics for
1 + billion stars

The background of the slide is a deep space image showing the Milky Way galaxy. A horizontal band of light and dark clouds represents the galactic plane. On the right side, a small blue circle marks a specific location in the sky. Three green, wedge-shaped lines radiate from this circle: one pointing left, one pointing right, and one pointing downwards. These lines likely represent the fields of view or survey areas of different astronomical instruments.

Gaia-ESO, APOGEE, GALAH,
soon WEAVE and 4MOST
detailed chemistry for
millions of stars

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But nuclear astrophysics has specific needs on rare and hard-to-observe elements and isotopes. An on-going challenge to combine these views!

What ChETEC-INFRA contributes

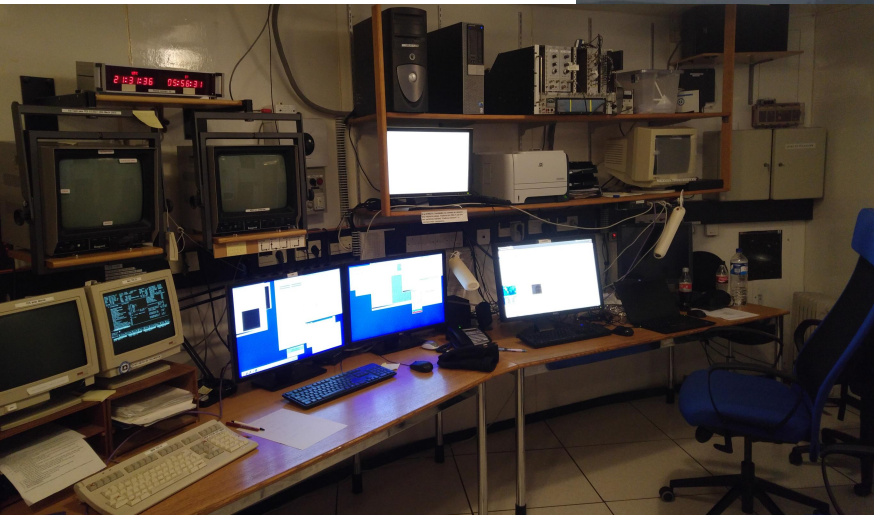
As part of the ChETEC-INFRA network, we provide **Trans-National Access** (TNA) to a number of medium-size telescopes with spectroscopic capabilities. Calls will go out in due time.

Additionally, we will organize a few **Observational Schools** which offer hands-on experience with the technologies and methodologies used to constrain the nuclear history of the universe:

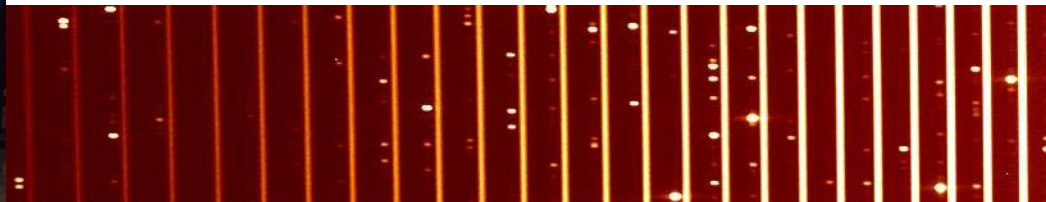
- Two 1-week schools with remote access to the Nordic Optical Telescope (NOT) on the Canaries (Spain). Depending on the whereabouts (e.g. Moletai Observatory) additional access to local telescopes.
- One shorter school in connection with an international conference (e.g. Nuclei in the Cosmos). Even for this one we will have remote access to the NOT.
- Immersion: learning by doing
- From observations to scientific results: preparation and execution of spectroscopic observations, data reduction, data analysis.
- A great opportunity to learn the nitty-gritty of stellar spectroscopy.

The NOT, a spectroscopy workhorse

A 2.56m telescope
(presently run by
Arhus University &
University of
Turku) at the best
site in Europe:
Roque de los
Muchachos,
La Palma, Canarias,
Spain.



The fiber-fed FIES spectrograph covers
 $3700 \text{ \AA} < \lambda < 8300 \text{ \AA}$ in a single exposure
at resolving powers between 25,000 and 67,000.



Let's take the first step today!

ChETEC-INFRA SNAQs [snacks]

Schools on Nuclear Astrophysics Questions

Question in April 2021: How to get from starlight to stellar abundances?

Look for the green boxes!

Lecture 1: Heidi Korhonen (ESO, Chile)

From starlight to spectra — Observations for stellar abundance determinations

Lecture 2: Andreas Koch-Hansen (ZAH/ARI, DE)

From idea to science — The path to stellar abundance determinations

plus **PhD/postdoc talks** by Martina Baratella (I), Moritz Reichert (DE)
and Shreeya Shetye (BE)