A holistic analysis of metal-poor stars

Part 0: retrieving the useful information

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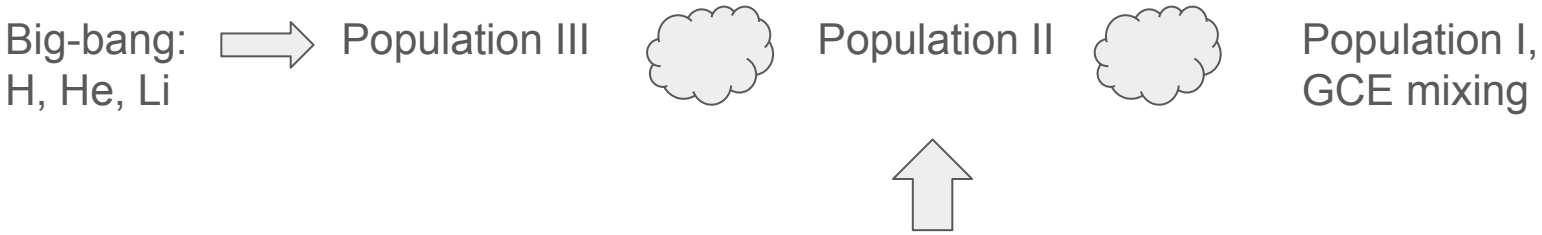
NATIONAL SCIENCE CENTRE POLAND

OPUS/LAP: grant number 2022/47/I/ST9/02358

Why metal-poor stars

Metal-poor ([Fe/H] < -2) stars retain information about the early Galaxy in their atmospheres.



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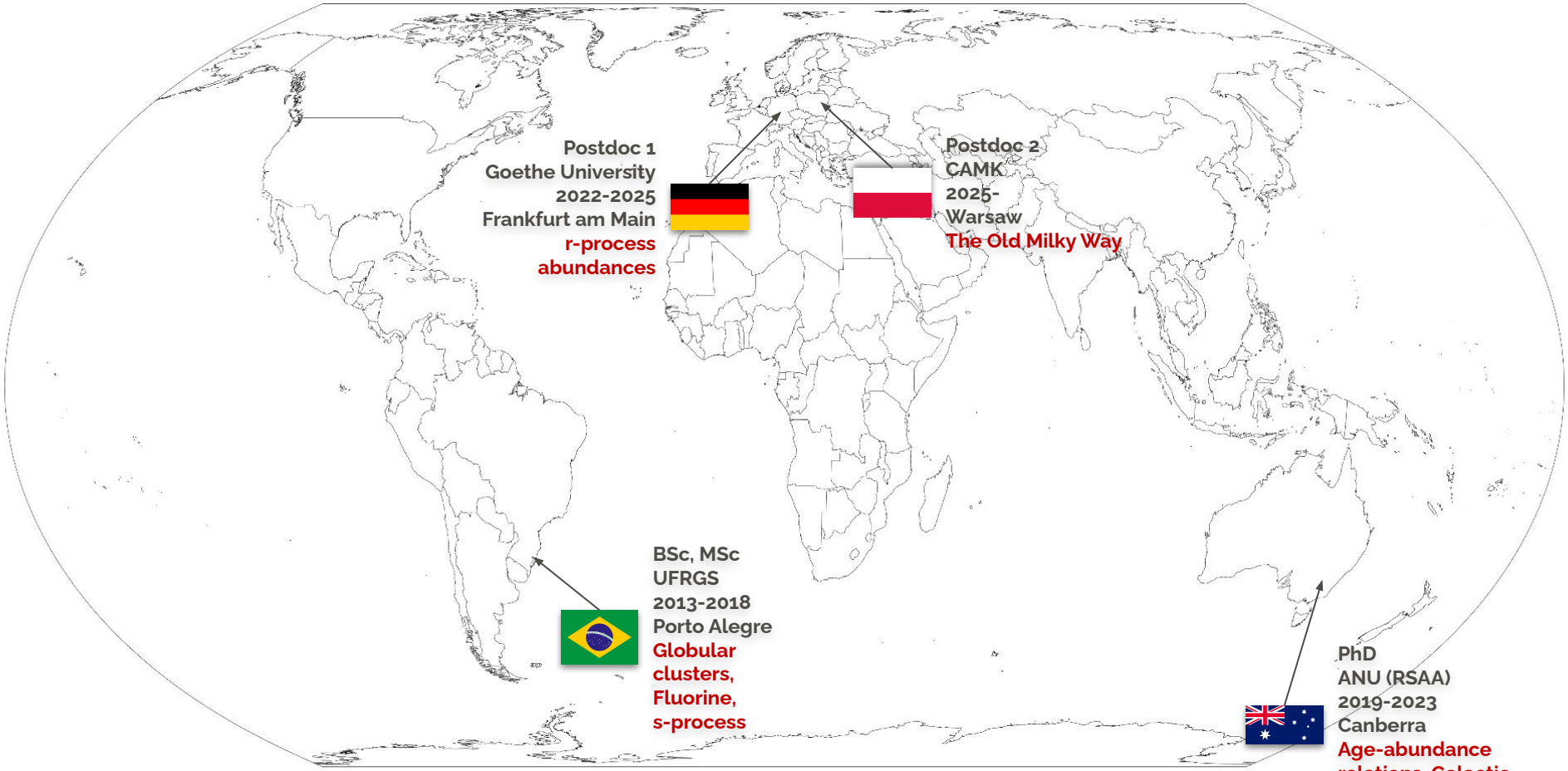
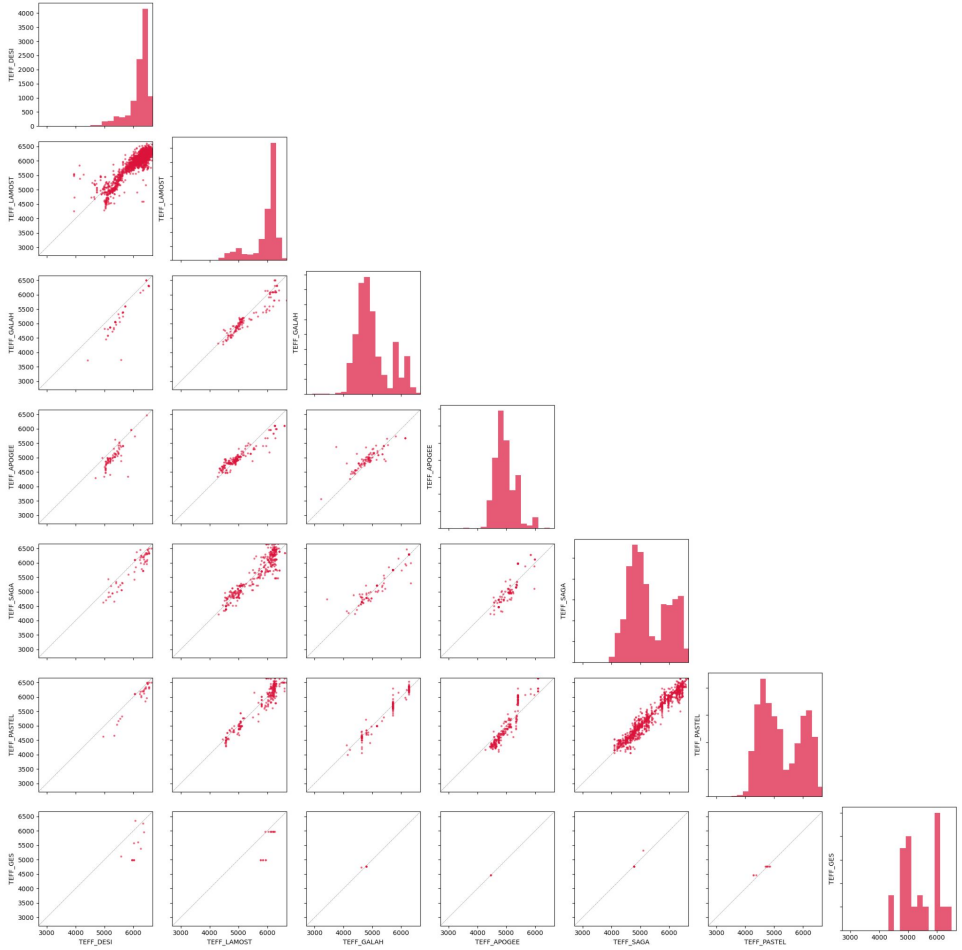

Postdoc 1
Goethe University
2022-2025
Frankfurt am Main
r-process
abundances
Postdoc 2
CAMK
2025-
Warsaw
The Old Milky Way
BSc, MSc
UFRGS
2013-2018
Porto Alegre
Globular
clusters,
Fluorine,
s-process
PhD
ANU (RSAA)
2019-2023
Canberra
Age-abundance
relations, Galactic
Archaeology

Data selection

- DESI DR1 (Koposov+ 2025)
- LAMOST DR10 v2.0
- GALAH DR4 (Buder+ 2024)
- APOGEE DR17 (Abdurro'uf+ 2022)
- SAGA database (Suda+ 2008, 2017)
- PASTEL (Soubiran+ 2016)
- GAIA-ESO v5.1 (Hourihane+ 2023)



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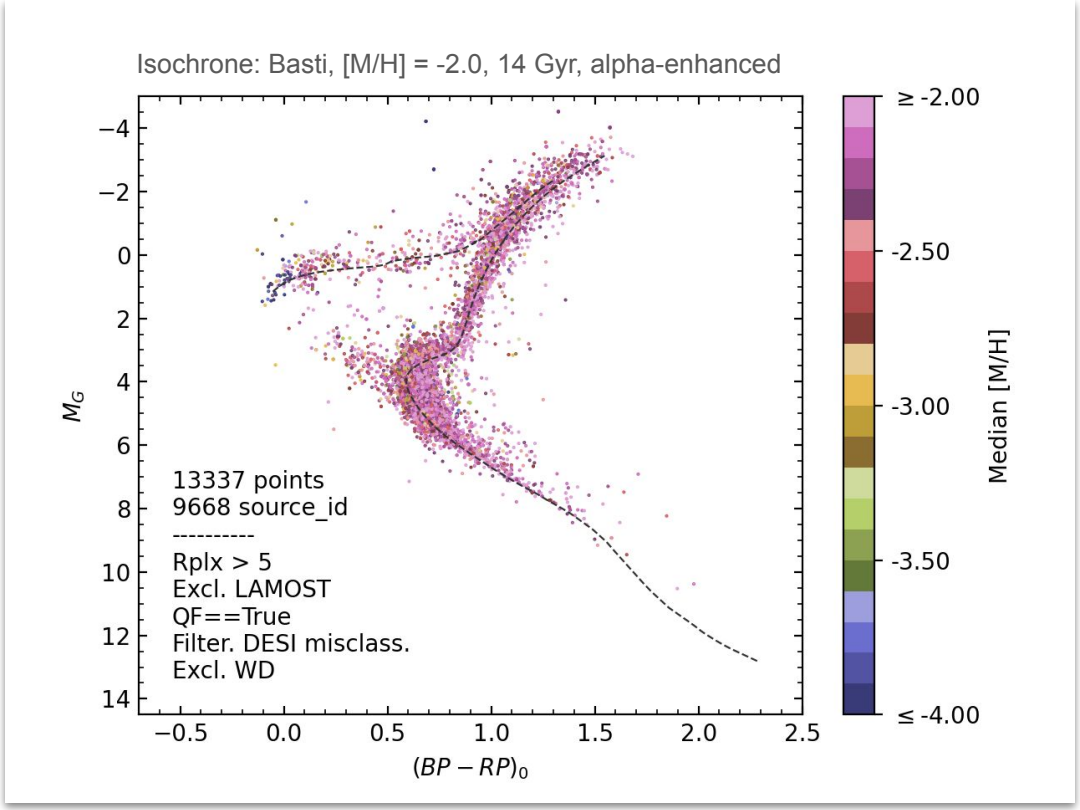
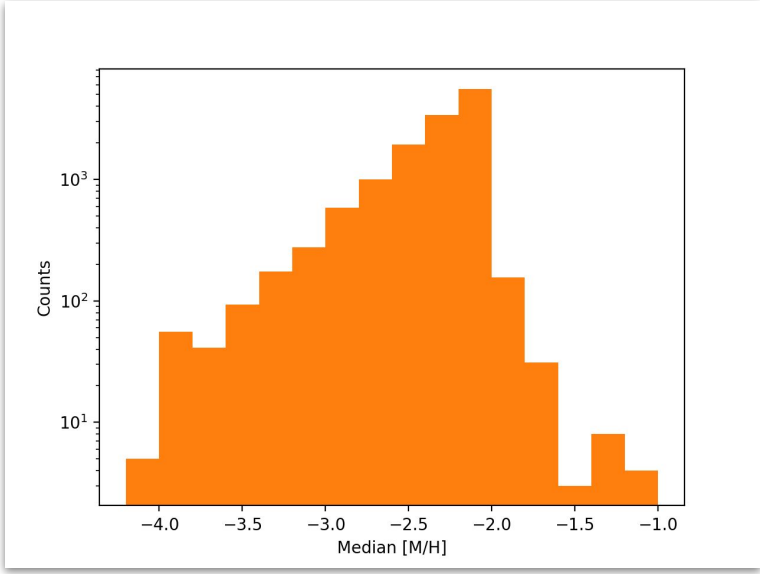
Current sample





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Future

- We are planning to submit three articles for peer-review:
  - An **overview** of the compilation;
  - A case study of **outliers**;
  - The **calibration** with the optimal dataset.
- Additionally, we have an article on heavy elements being prepared for submission with collaborators in Frankfurt.

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