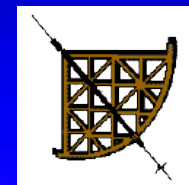


Bologna Open Clusters Chemical Evolution project

Paolo Donati



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INAF - Osservatorio Astronomico di Bologna

BOCCE members

Monica Tosi

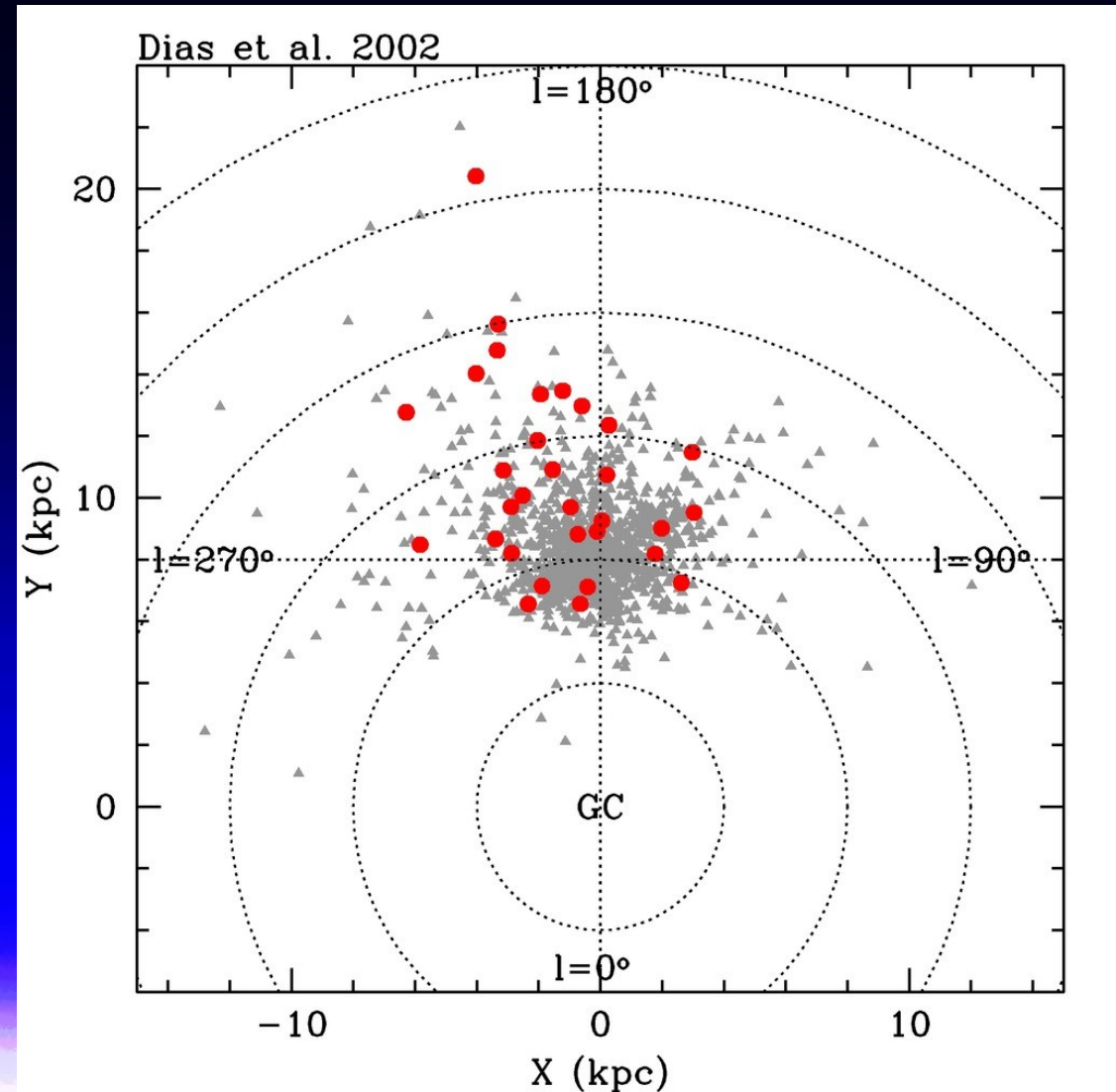
Angela Bragaglia

- Andrea V. Ahumada
- Eugenio Carretta
- Gloria Andreuzzi
- Raffaele Gratton
- Giacomo Beccari
- Sarunas Mikolaitis
- Michele Cignoni
- Grazina Tautvaisiene

...and many more!

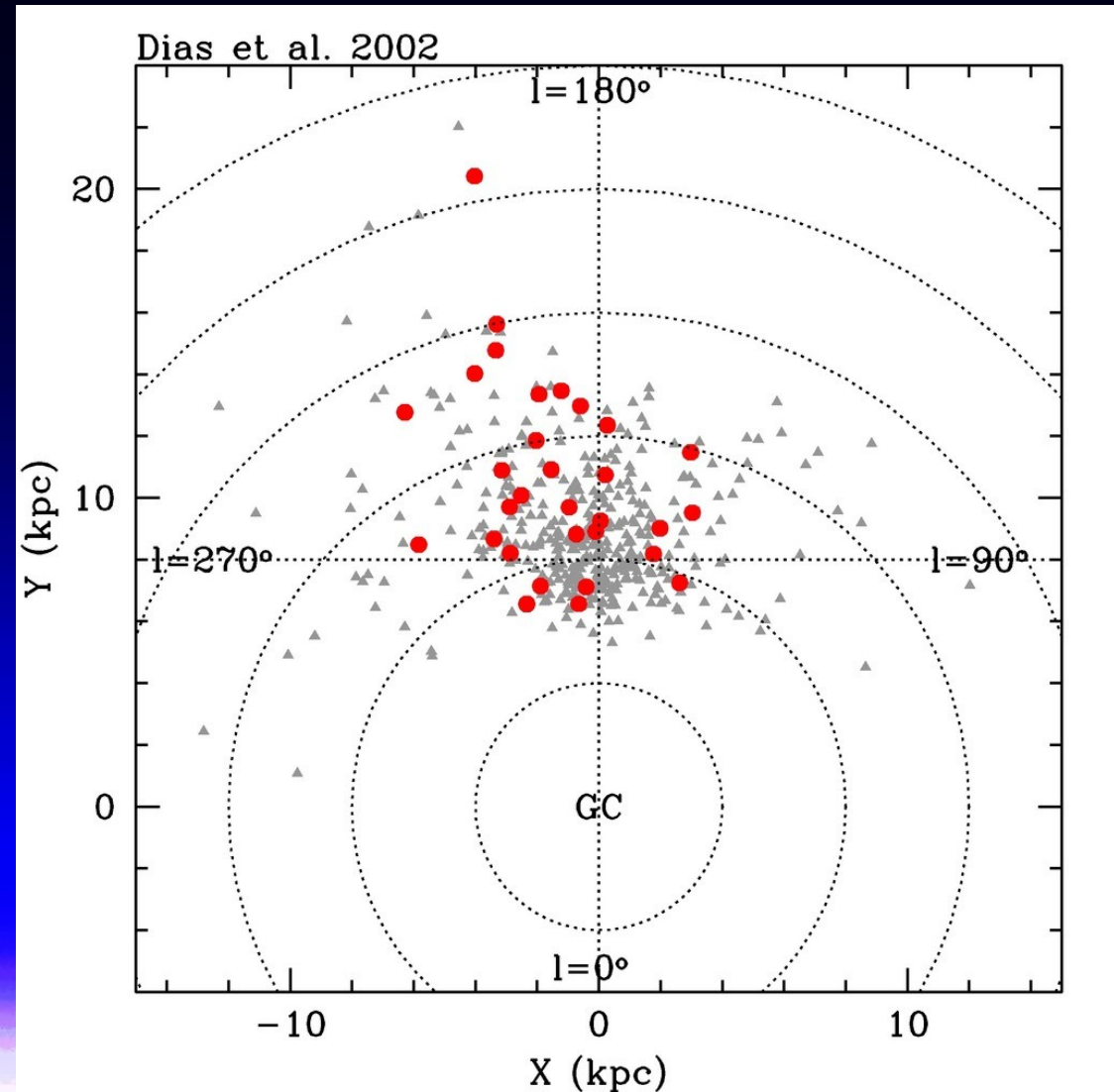
Observing OCs

- Why
- How many objects
- What we observe
- What we measure
- GAIA



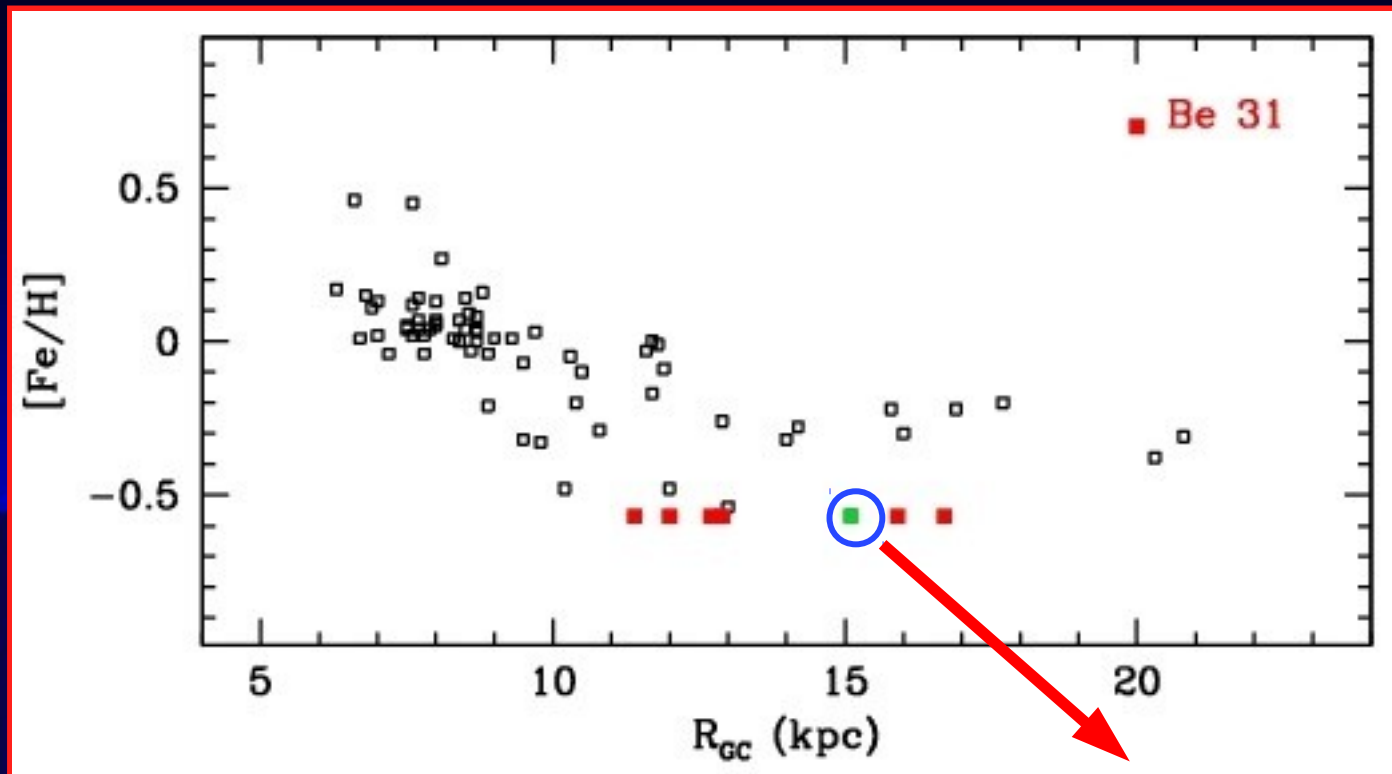
Observing OCs

- Why
- How many objects
- What we observe
- What we measure
- GAIA



Precision and Accuracy

- E.g.: Berkeley 31



Found in literature:

$4 \text{ kpc} < d < 8 \text{ kpc}$

$2 \text{ Gyr} < \text{age} < 8 \text{ Gyr}$

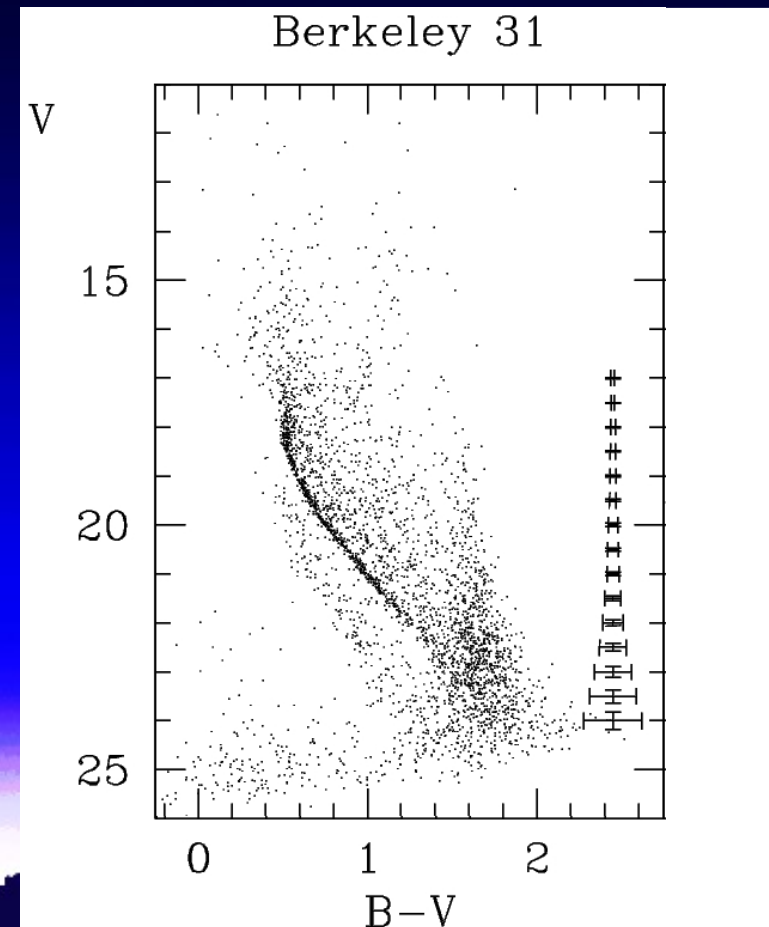
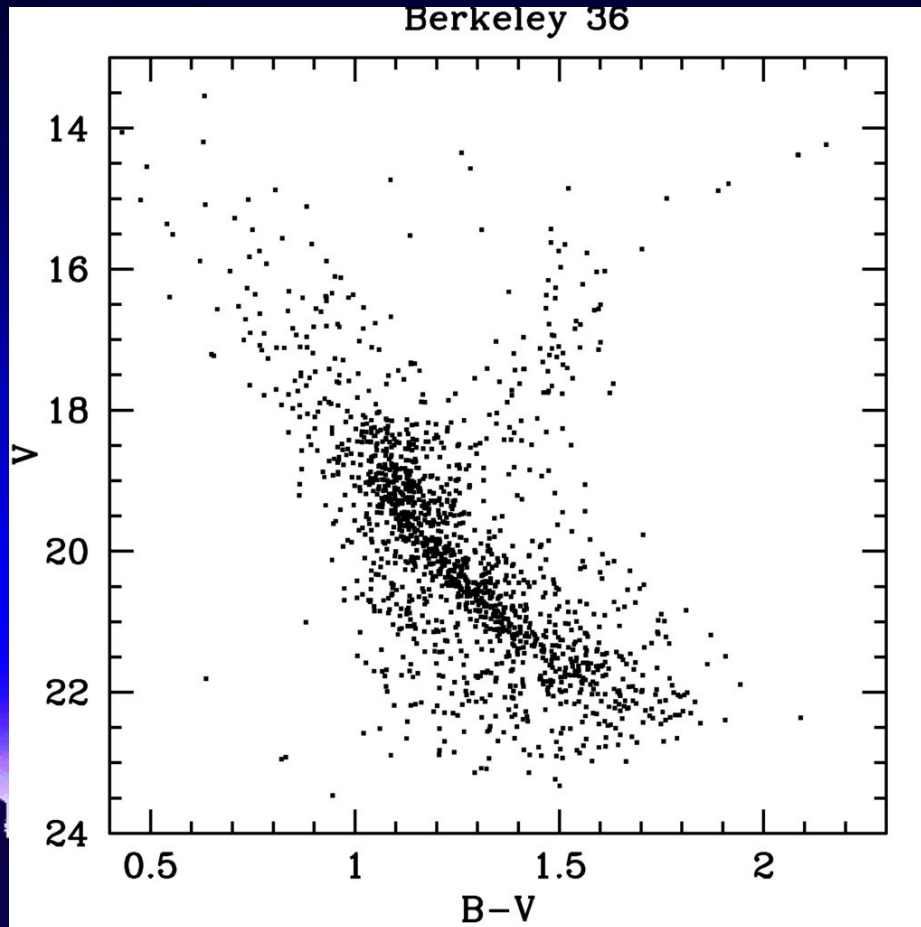
Our estimate:

$2.3 \text{ Gyr} < \text{age} < 2.5 \text{ Gyr}$

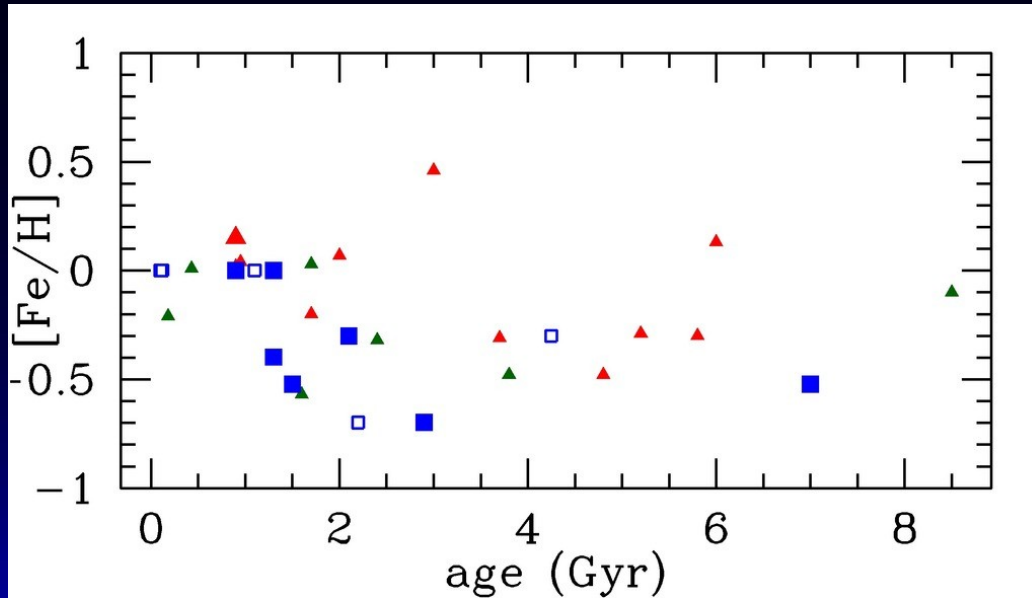
$R_{gc} > 15 \text{ kpc}$

Brand New Clusters (photo)

- Be 23, Be 31, King 8
- Be 27, Be 34, Be 36
- NGC 2849, NGC 6134
- and more with LBC@LBT



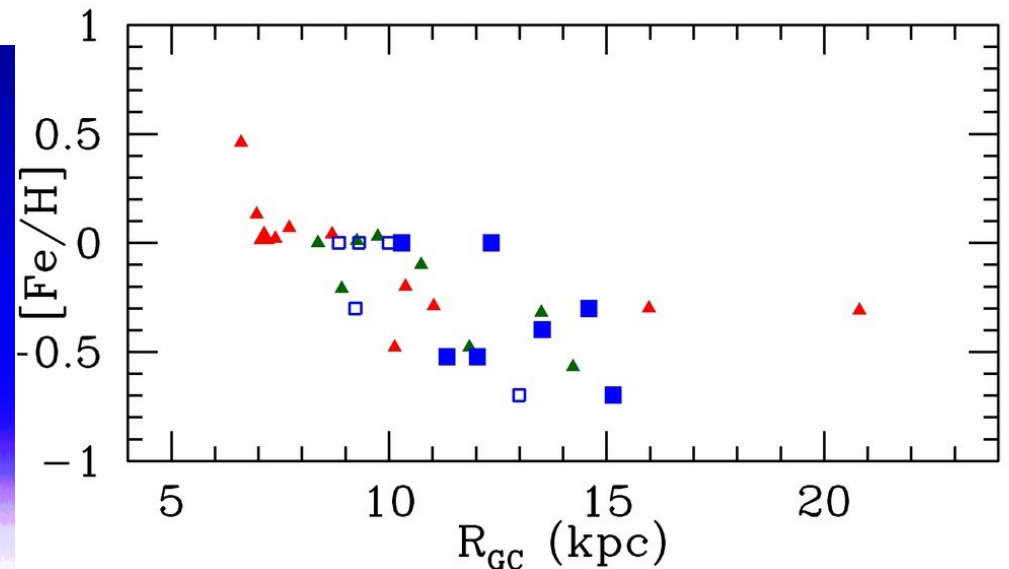
Spectroscopic data



- $\Delta[Fe/H] \sim 0.1$ dex
- About 2/3 (20 OCs) has HiRes spectroscopy
- Only ~ 80 OCs has HiRes spectroscopy in DAML02

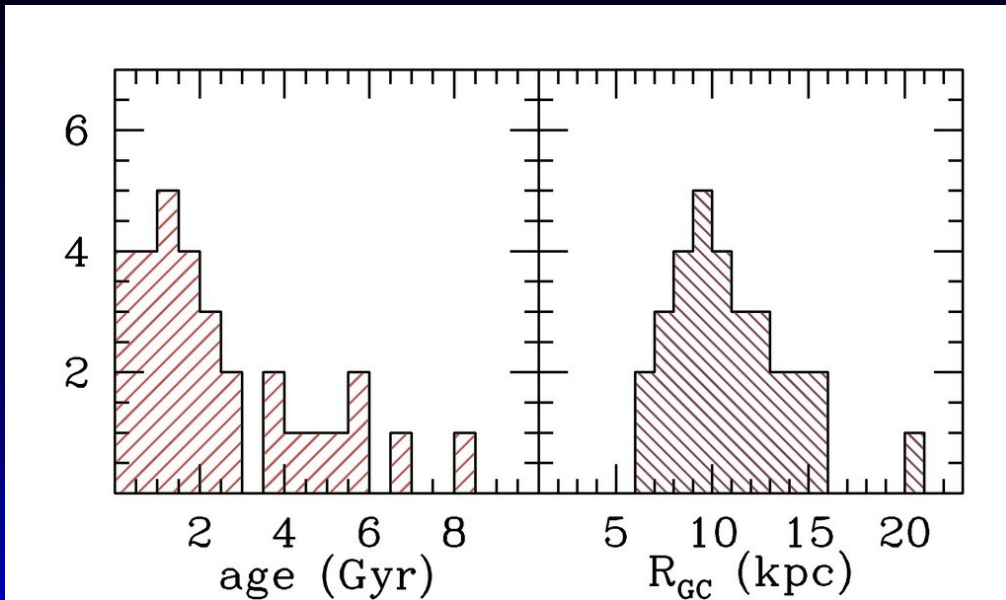
The Gaia ESO Spectroscopic Survey will target 10^5 stars and 100 OCs

We have photometry for many clusters and on large field of view

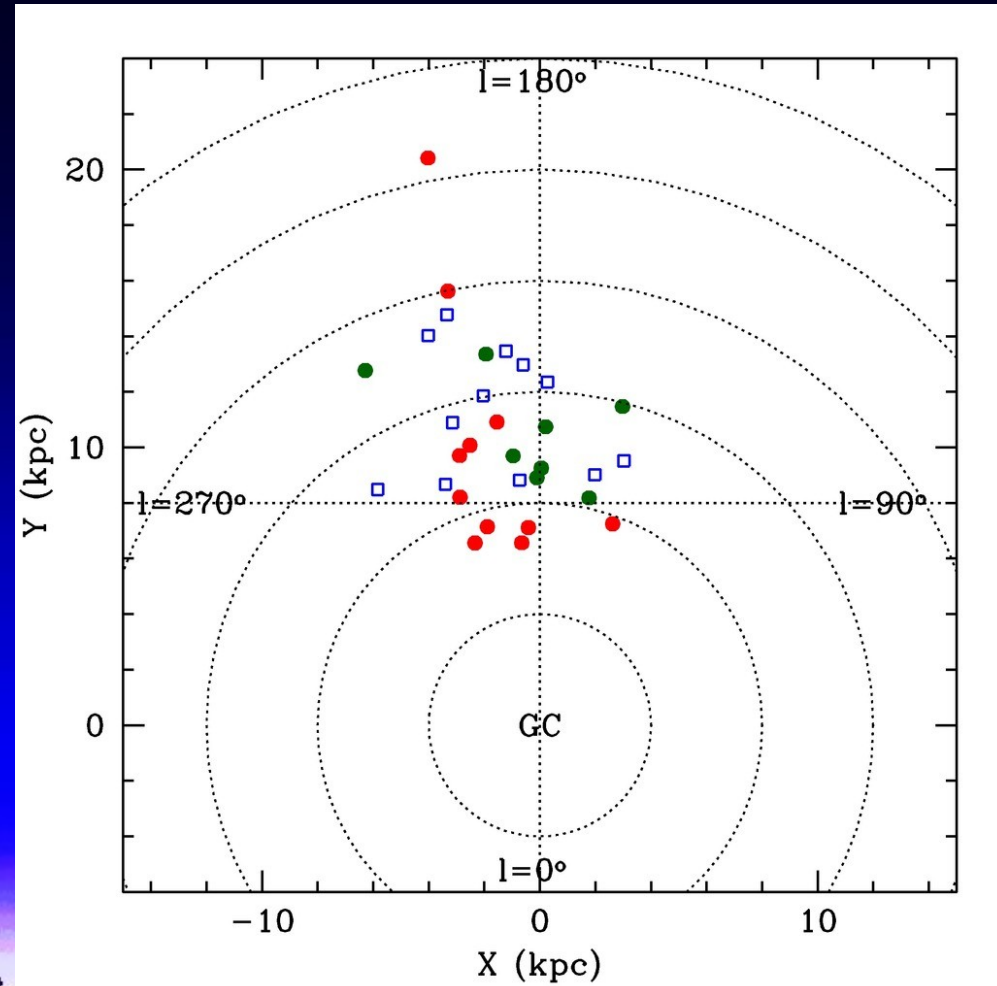


BOCCE

Spatial distribution of the BOCCE clusters



Age and distance distribution of the OCs in the BOCCE database



Thank you!