MSSL/UCL studies in preparation for Gaia

By S. Pasetto

In collaboration with

D. Kawata, J. Hunt and the Gaia-group @ MSSL

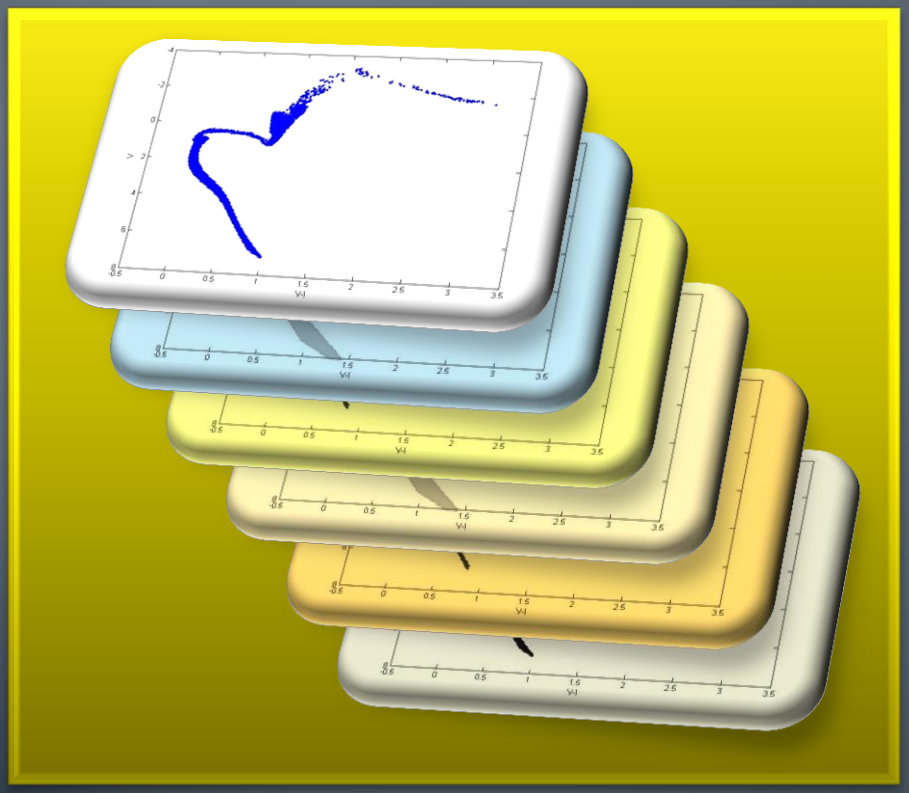
External collaborators:

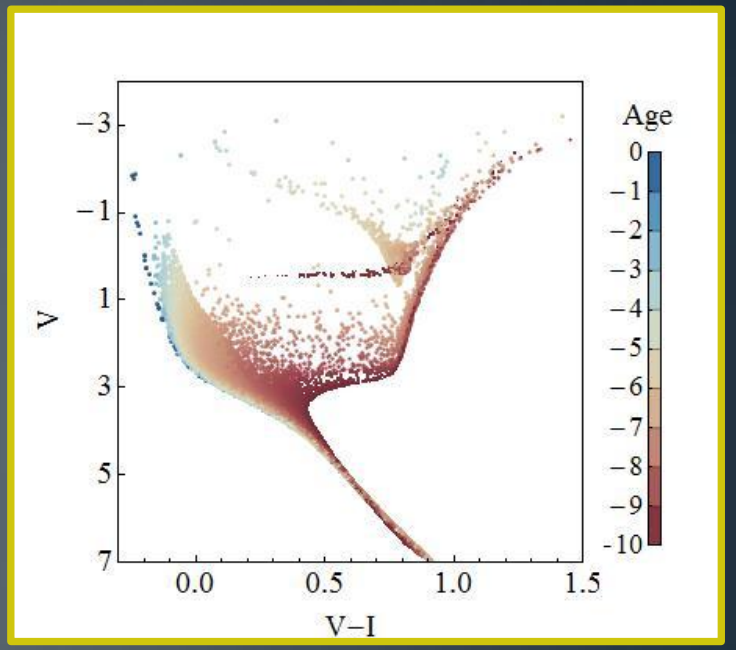
C. Chiosi, G. Bertelli @

University of Padova & Obs of Padova

Synthetic CMD in the Gaia era

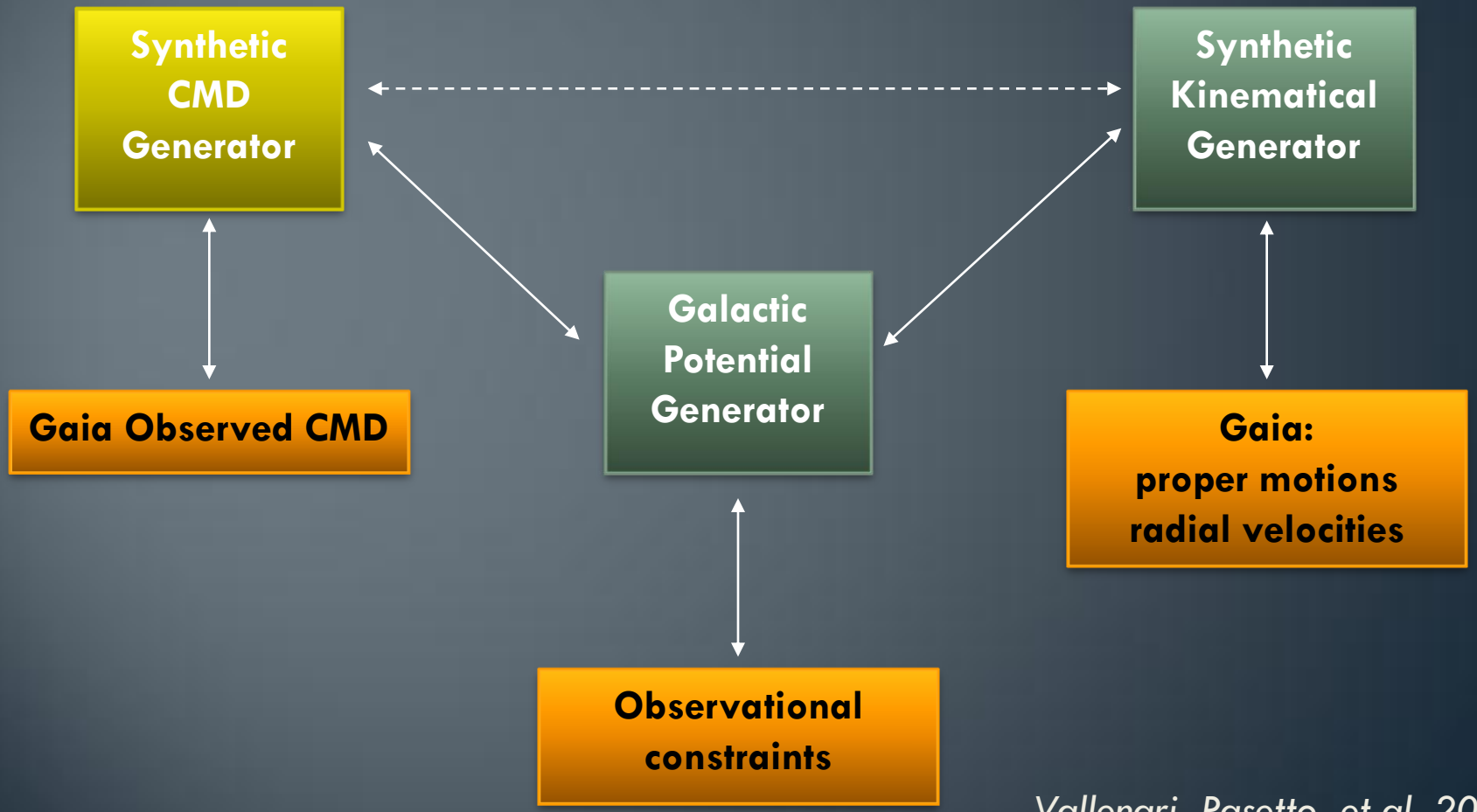
how to extract informations?





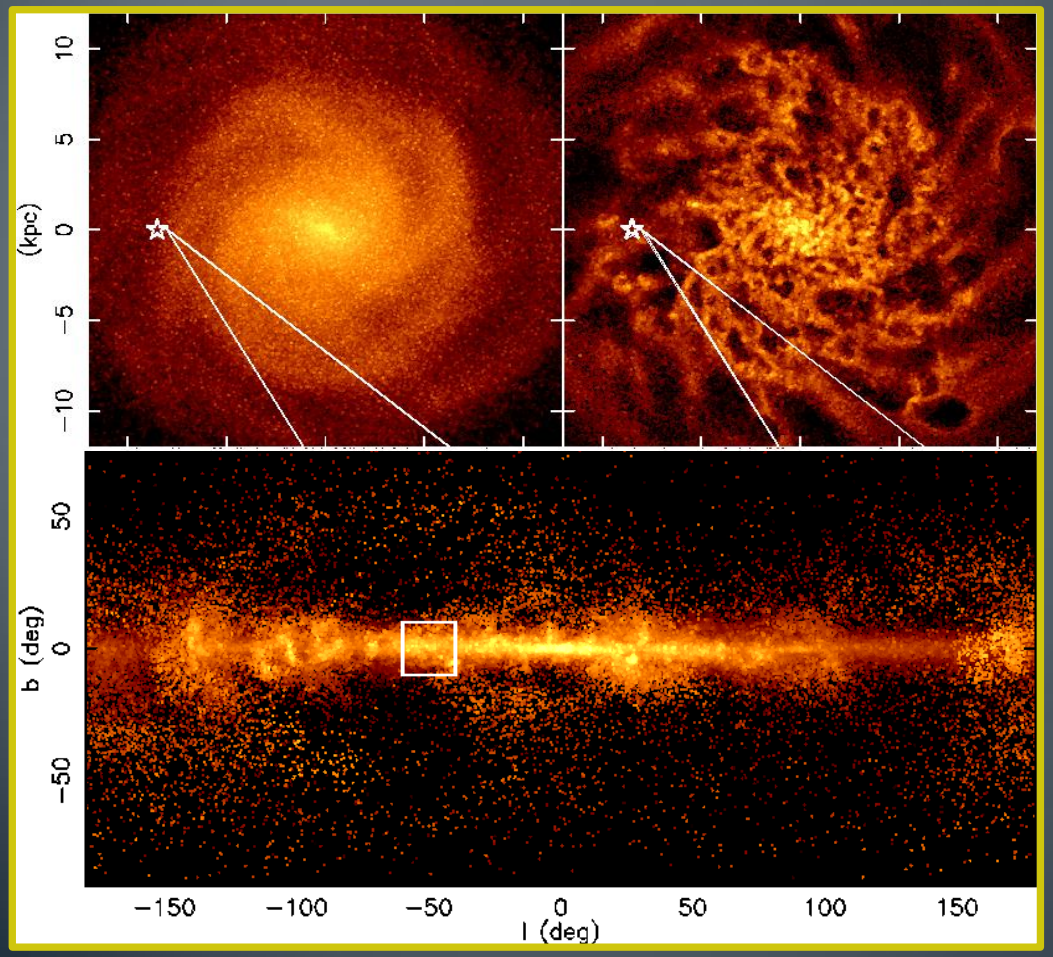
Chiosi, Pasetto et al. 2012
in preparation

The Padua's Galaxy Model

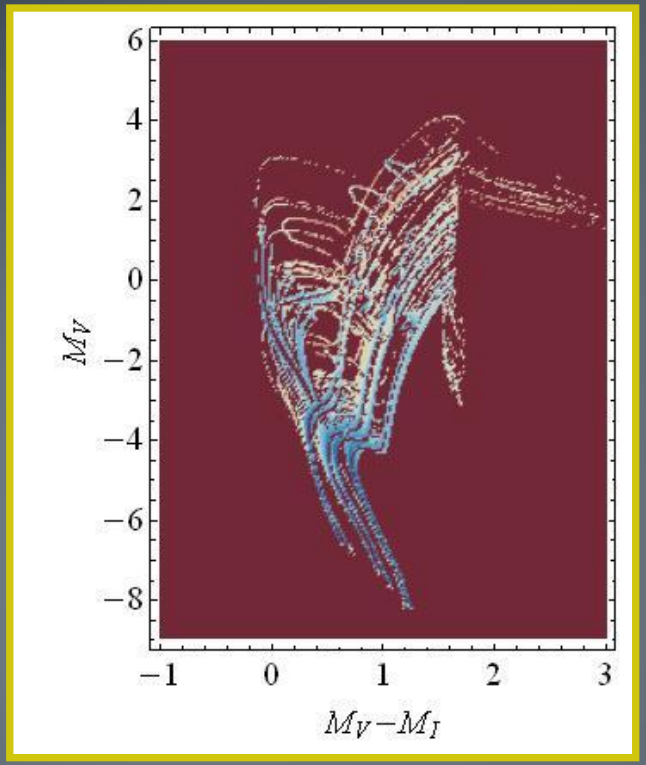


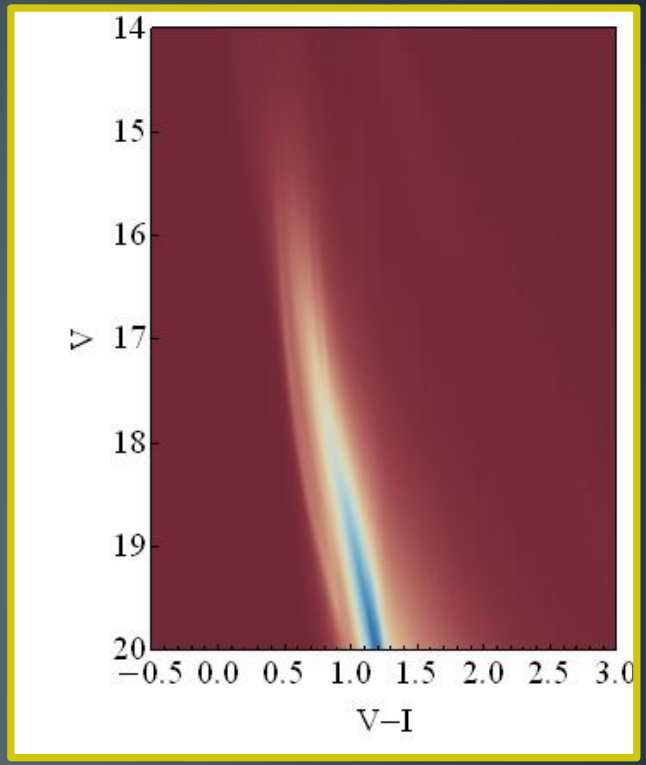
Vallenari, Pasetto et al. 2006

Photometry from N-body



Rahimi, Kawata et al. 2012 in press





Extintion effects, dust models

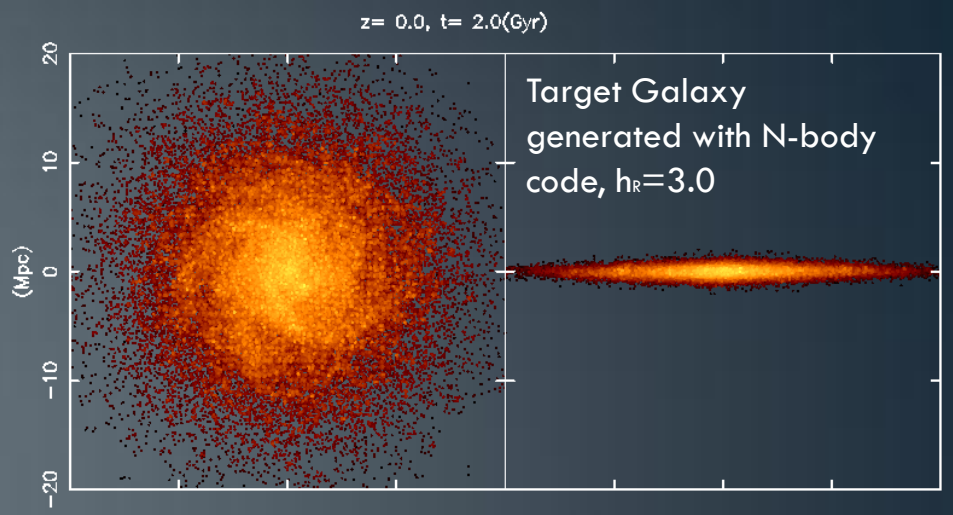
Pasetto, Kawata et al. 2012
in preparation

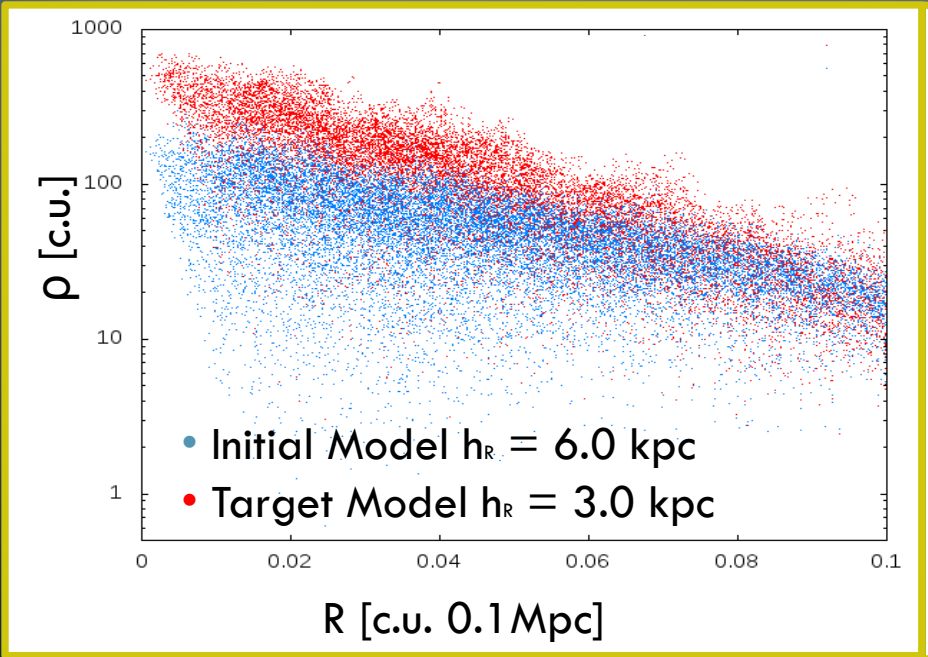
A Particle Based M2M Method

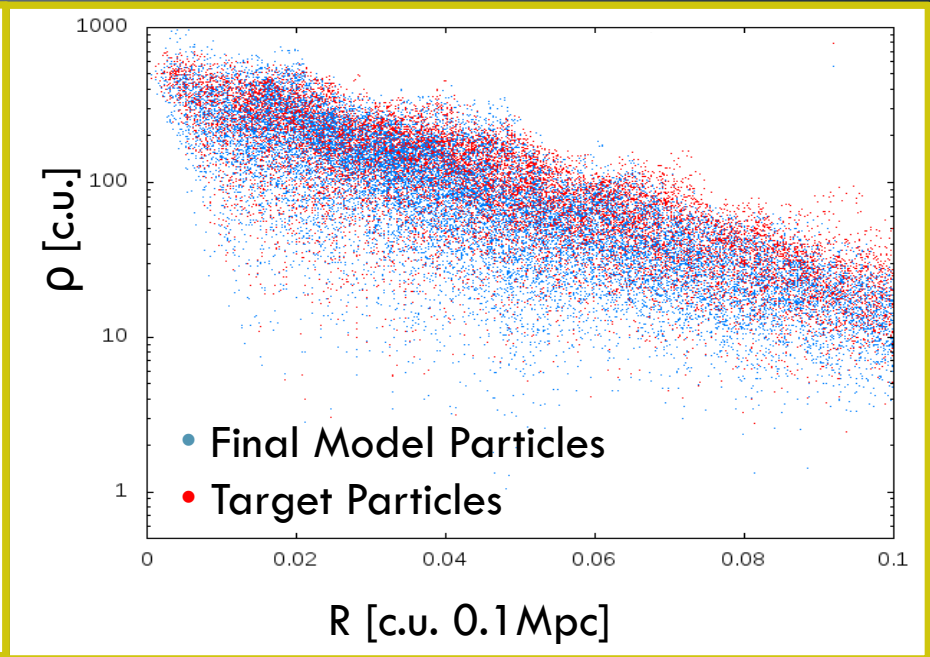
J. Hunt, Kawata et al. 2012 in preparation

M2M implemented to use

1. SPH kernel
2. Accounting for self Gravity
3. Works for disc galaxies







Work in progress on:

Some theoretical aspects

- The role of the extinction on the structure characterization
- Advancing Padua Galaxy model
- Coupling of M2M technique with photometry

Some practical aspect

- Synthetic error injection in the models