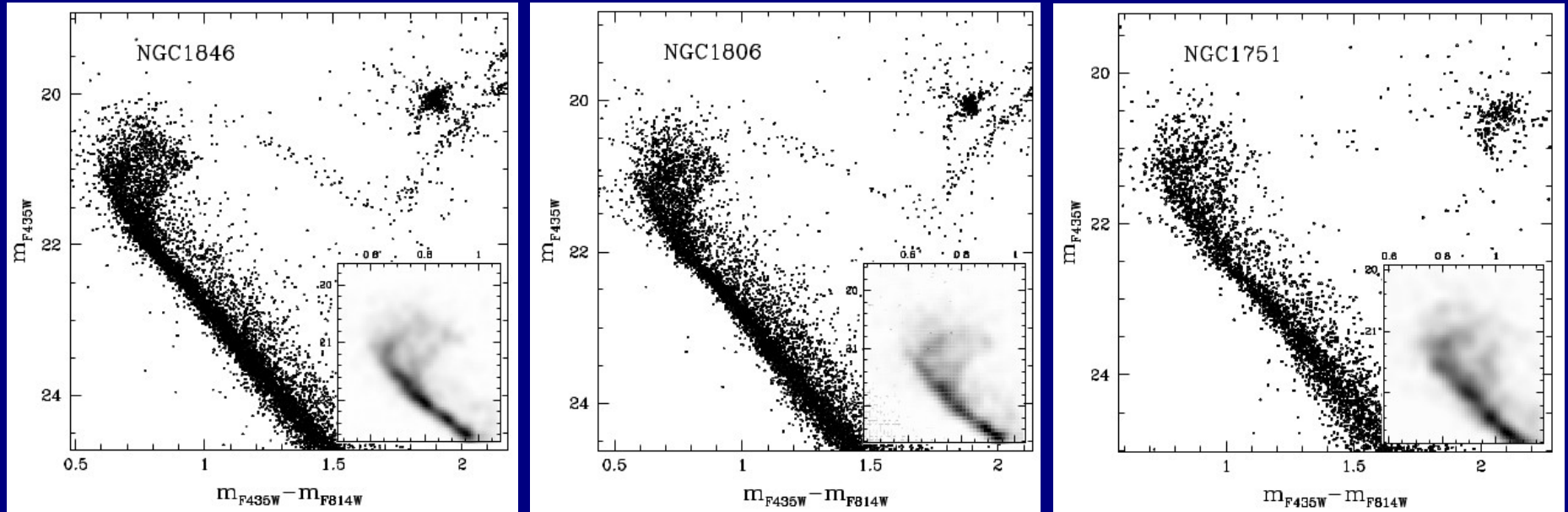


THE EXTENDED MAIN SEQUENCE TURNOFF PHENOMENON IN LMC STAR CLUSTERS

**Andrés E. Piatti
Nate Bastian**

SPREAD AT THE MSTO



Marino et al. (2009)

Mackey et al. (2008) \longrightarrow 100-700 Myr

Bastian & de Mink (2009) \longrightarrow evol.

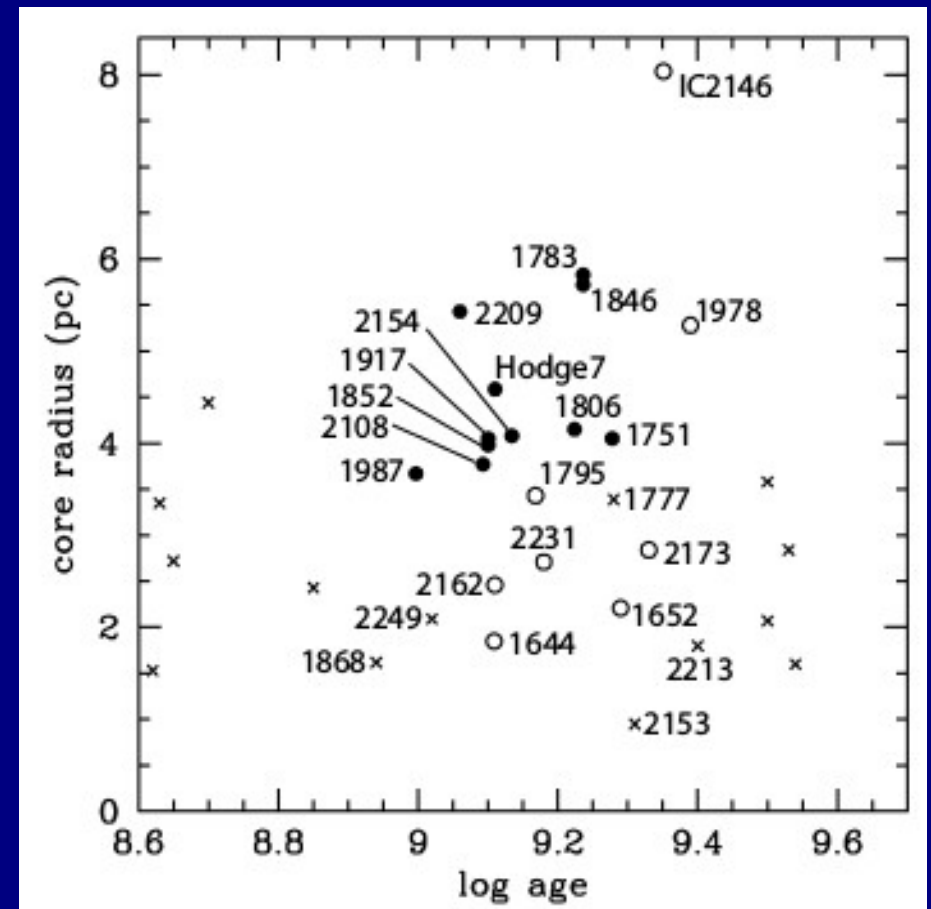
EXTENDED MSTO

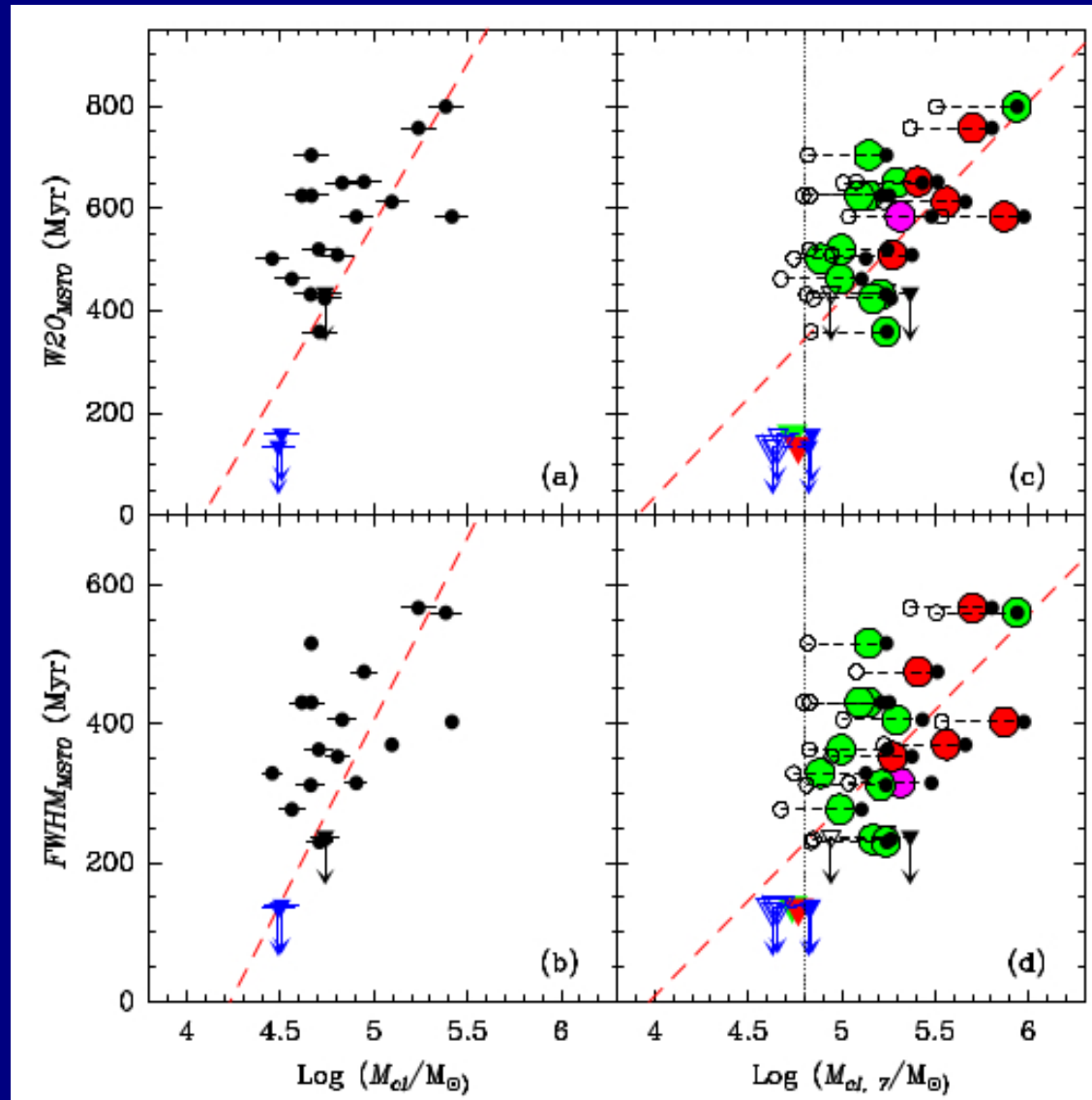


CLUSTER PROPERTIES

Keller et al. (2012):

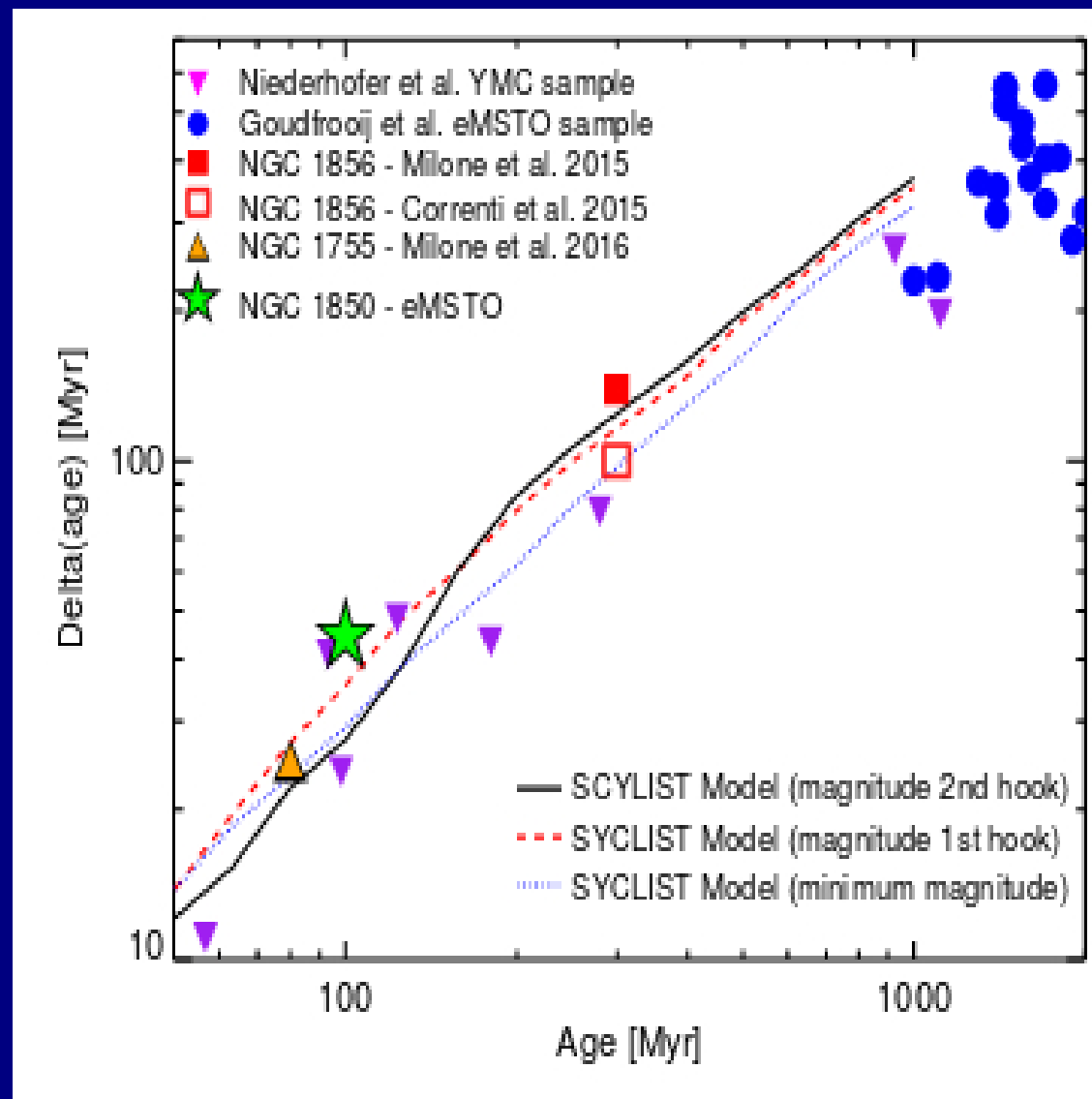
**Large core radius
by-product of
eMSTO formation
process.**

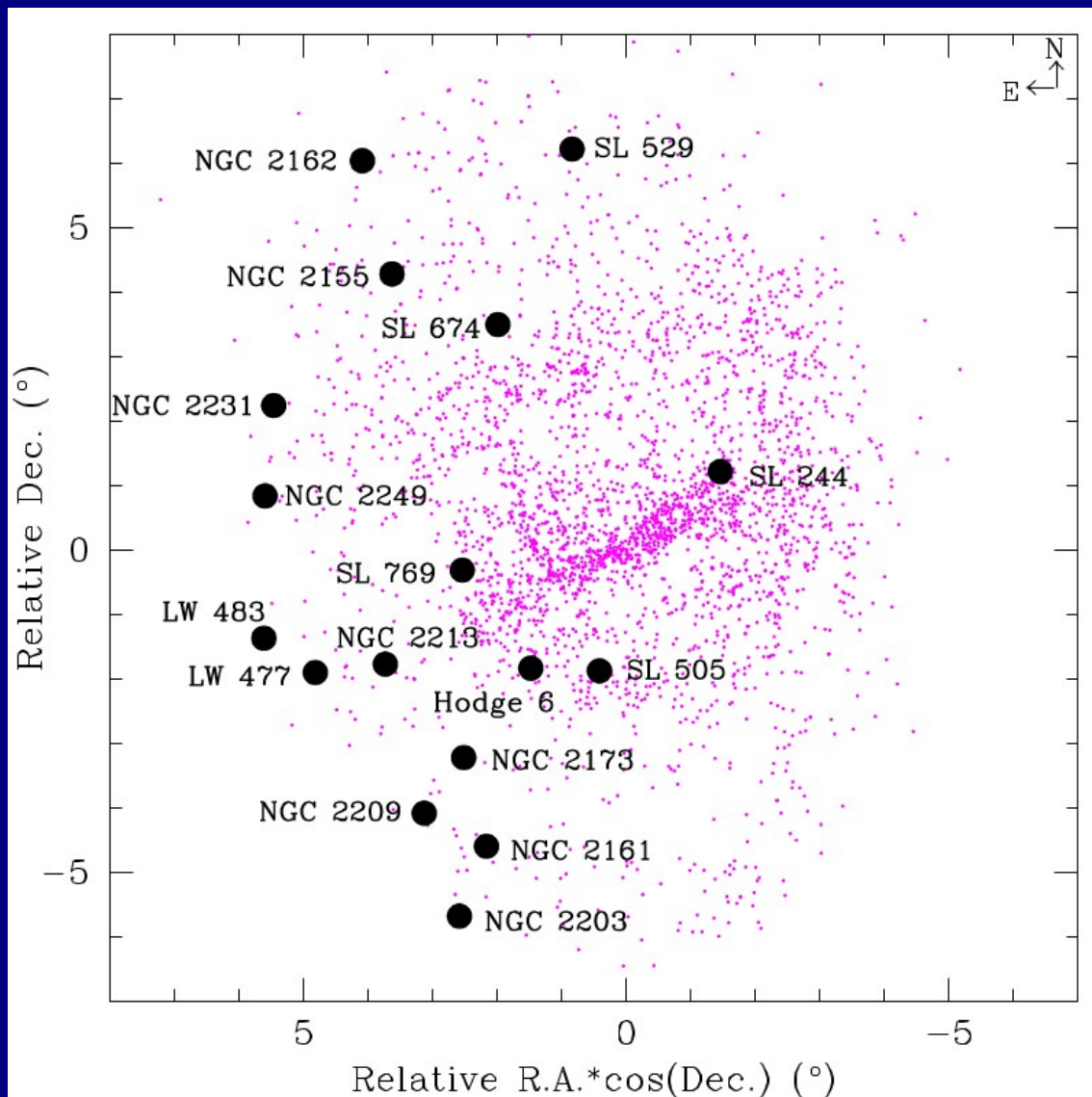




Goudfrooij et al. (2014): cluster mass ($\log M > 4.8$) responsible for eMSTO.

Bastian et al. (2016): age spreads do not exist; eMSTO caused by evolutionary effects.

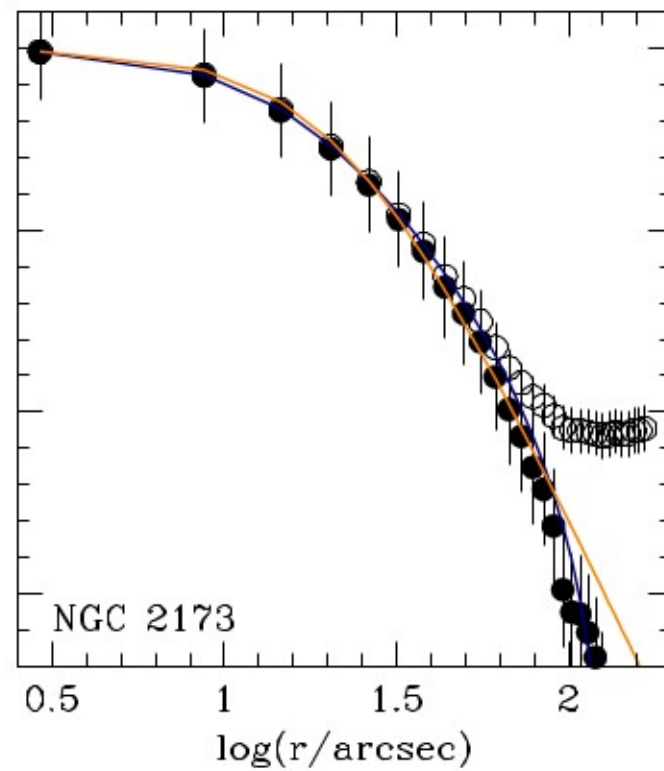
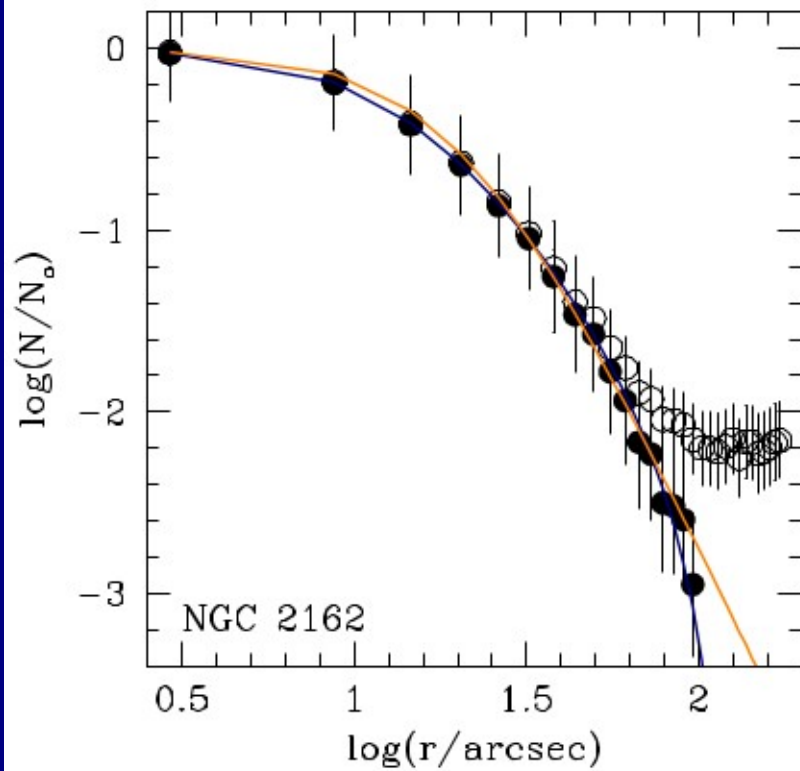
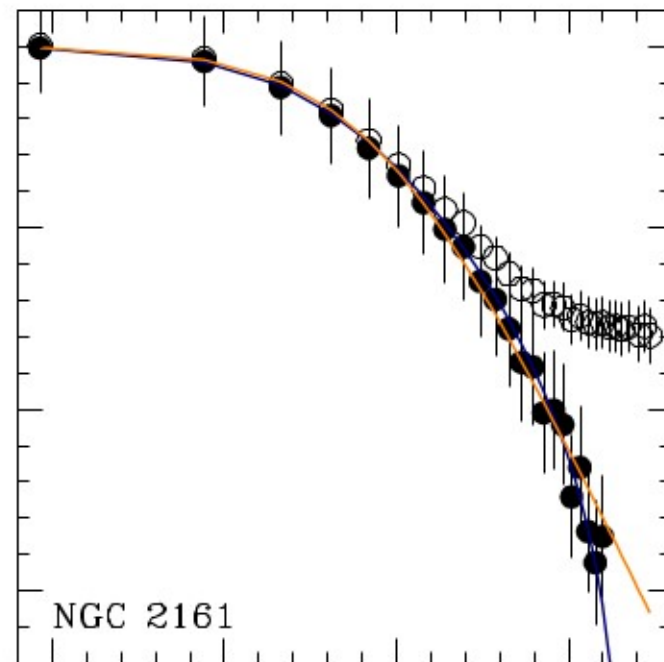
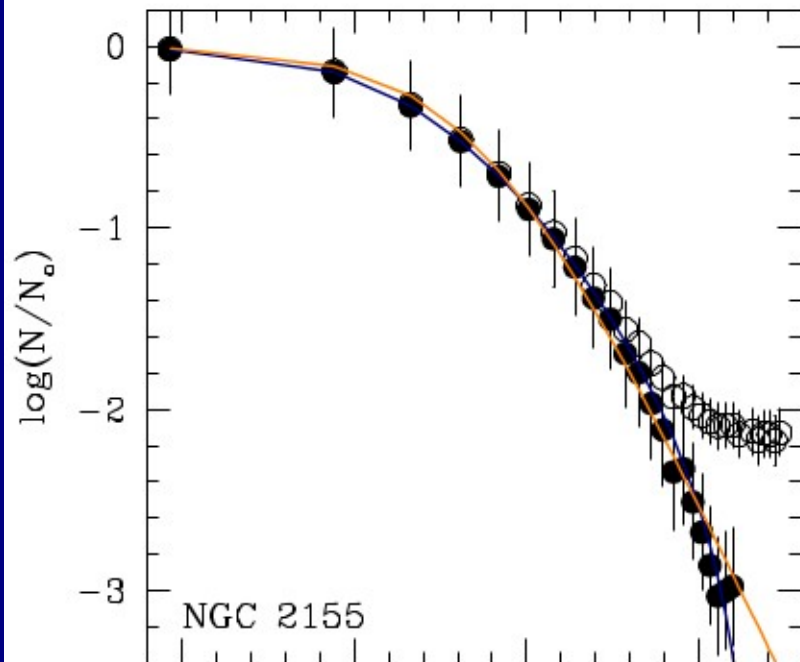


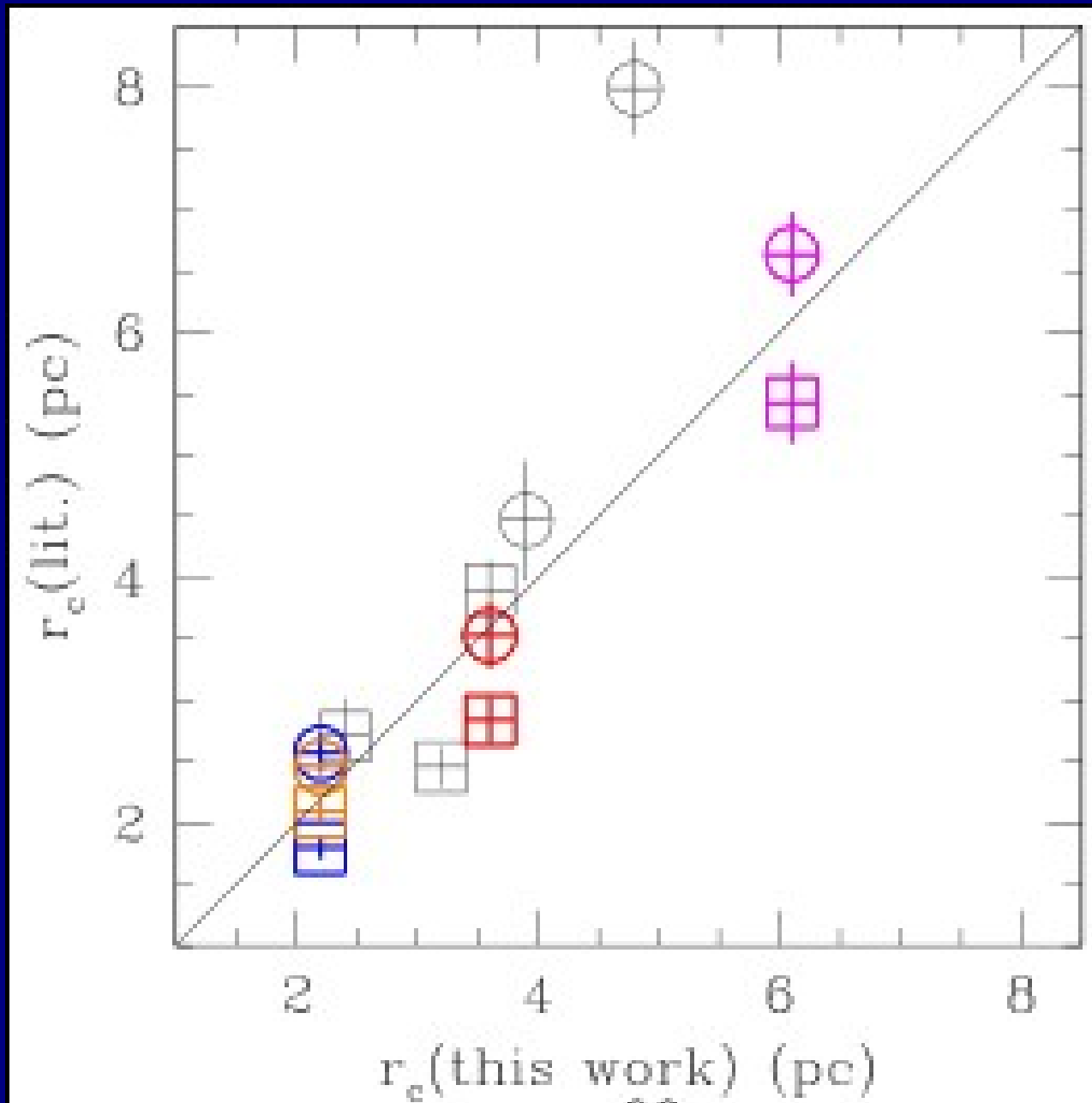


◆ GMOS-S g,i

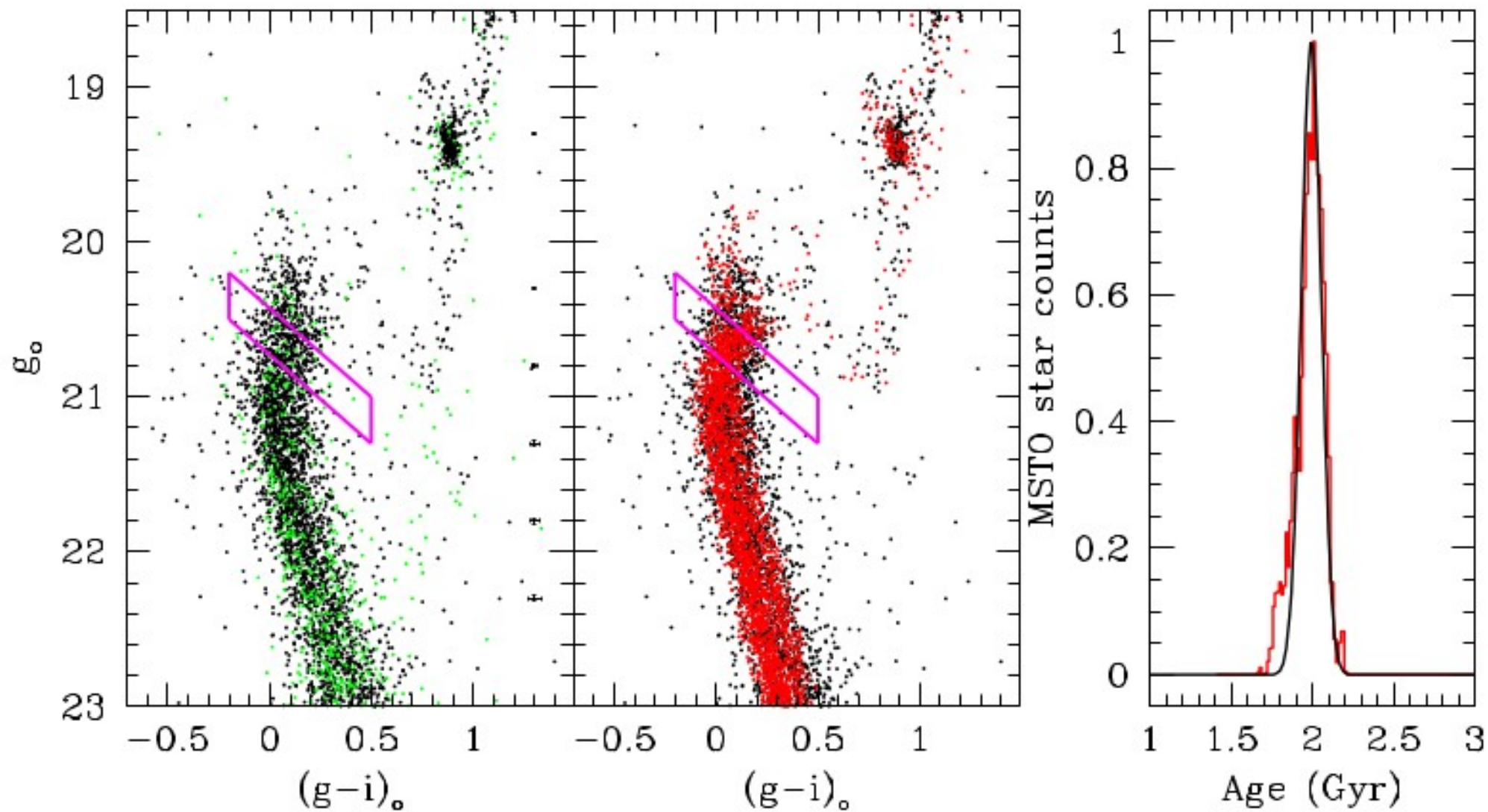
◆ 17 LMC clusters

◆ intermediate-age

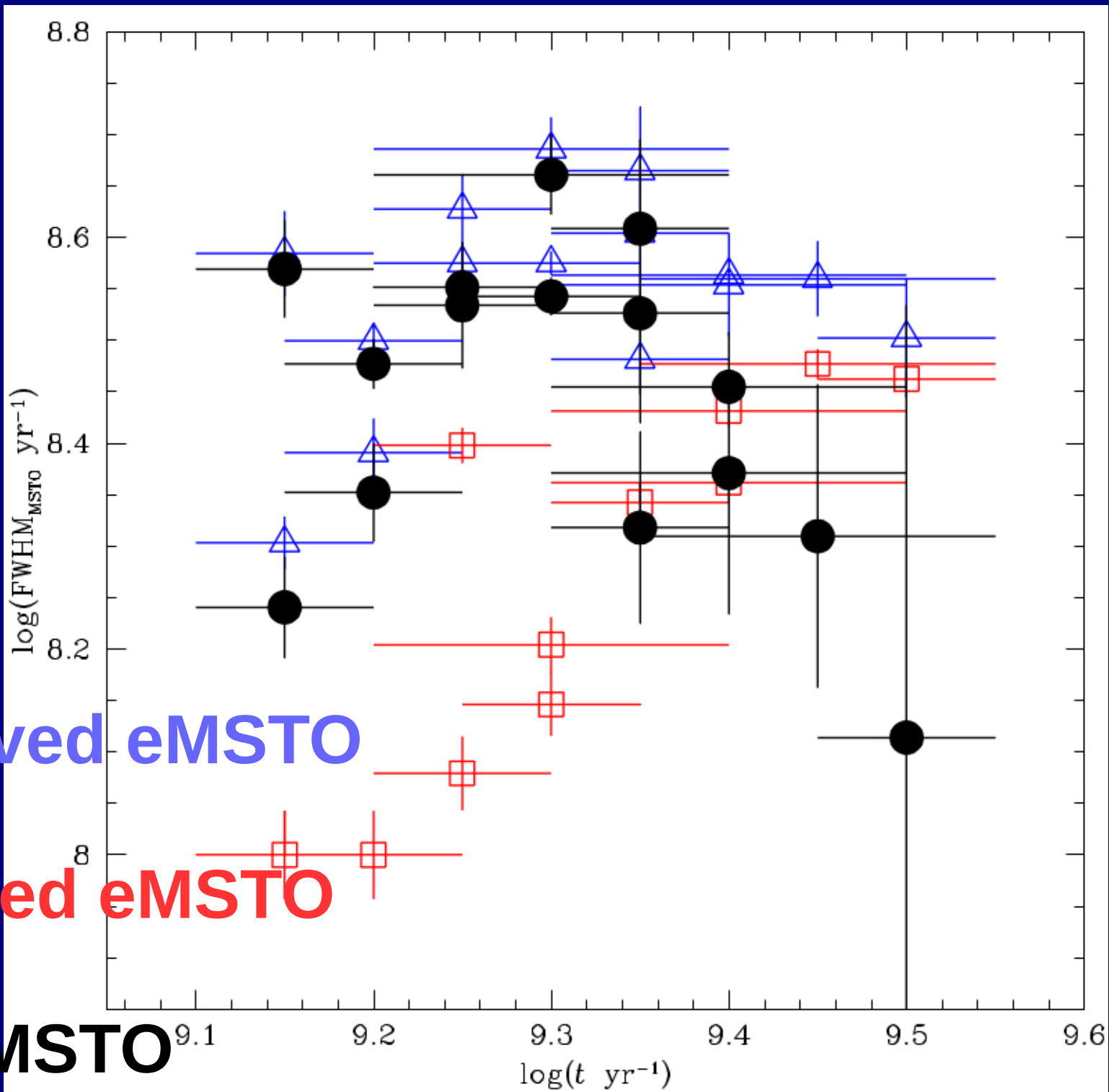




HST: Mackey & Gilmore (2003), Goudfrooij et al. (2014), Correnti et al. (2014).



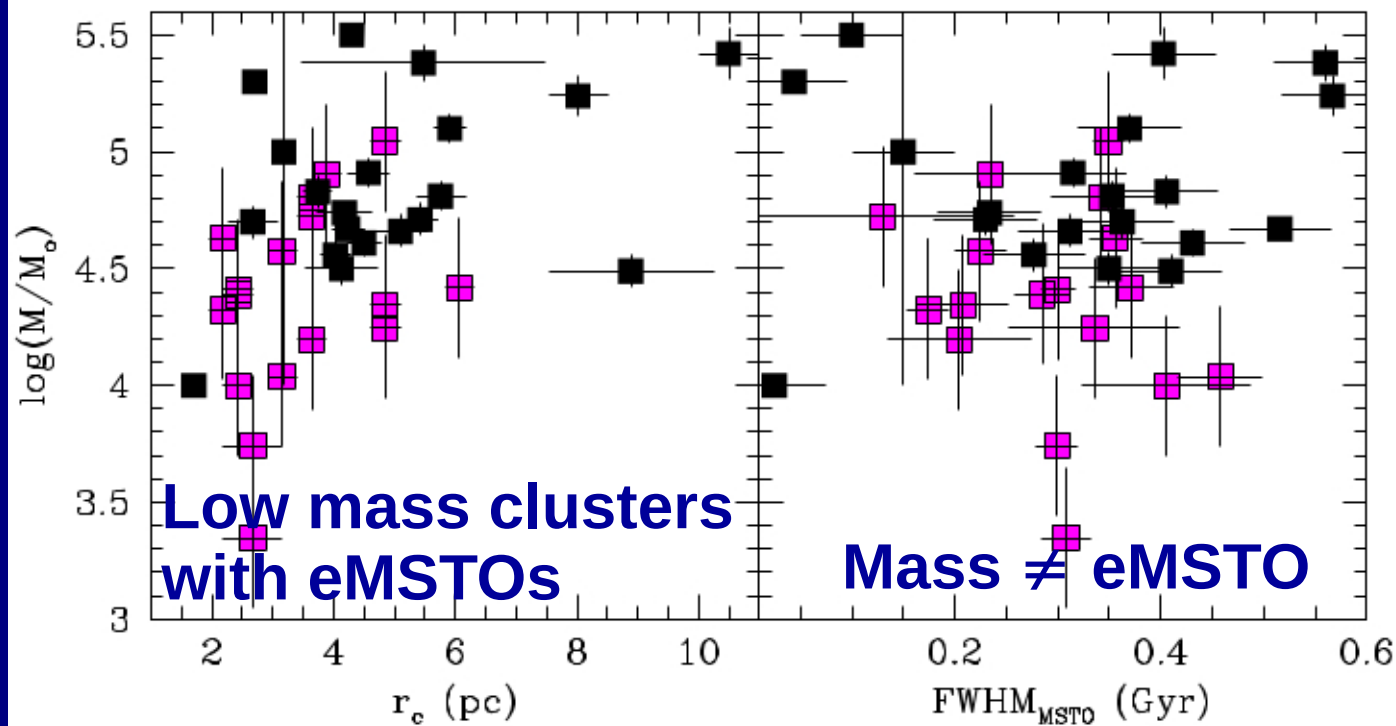
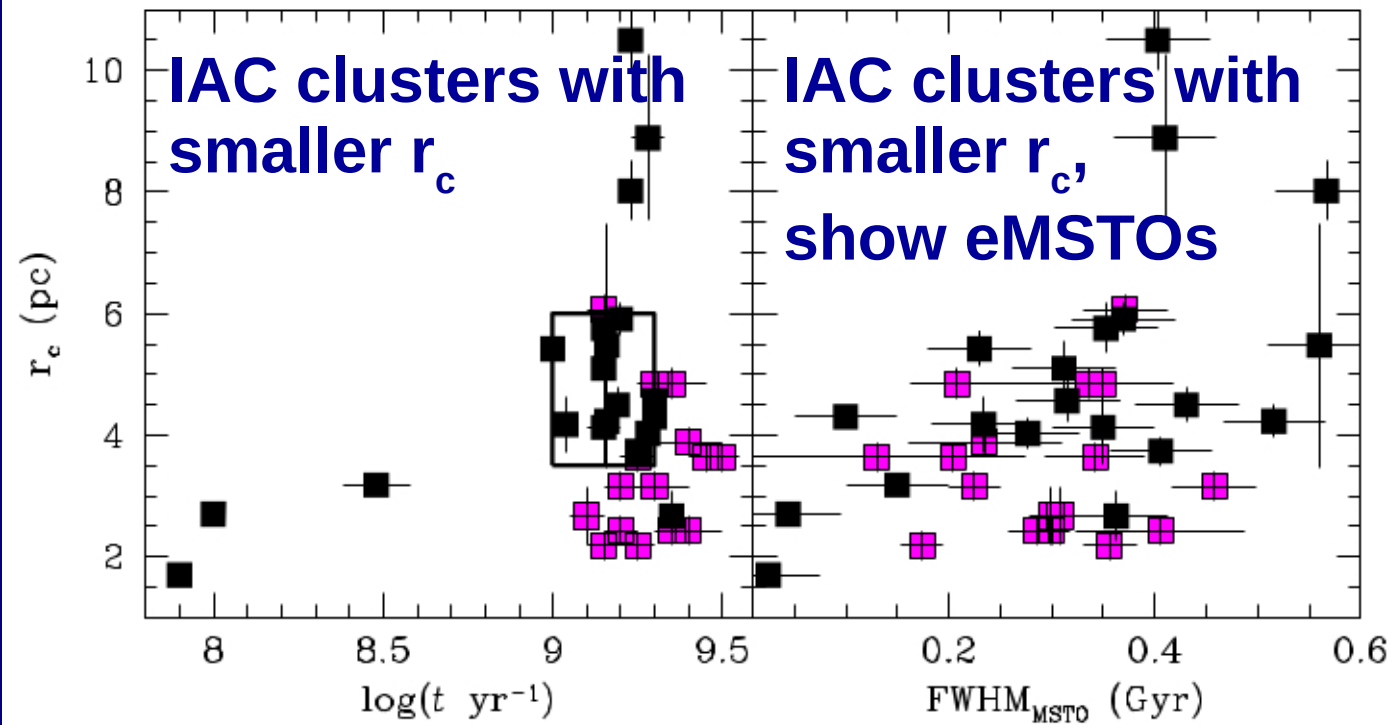
NGC 2203

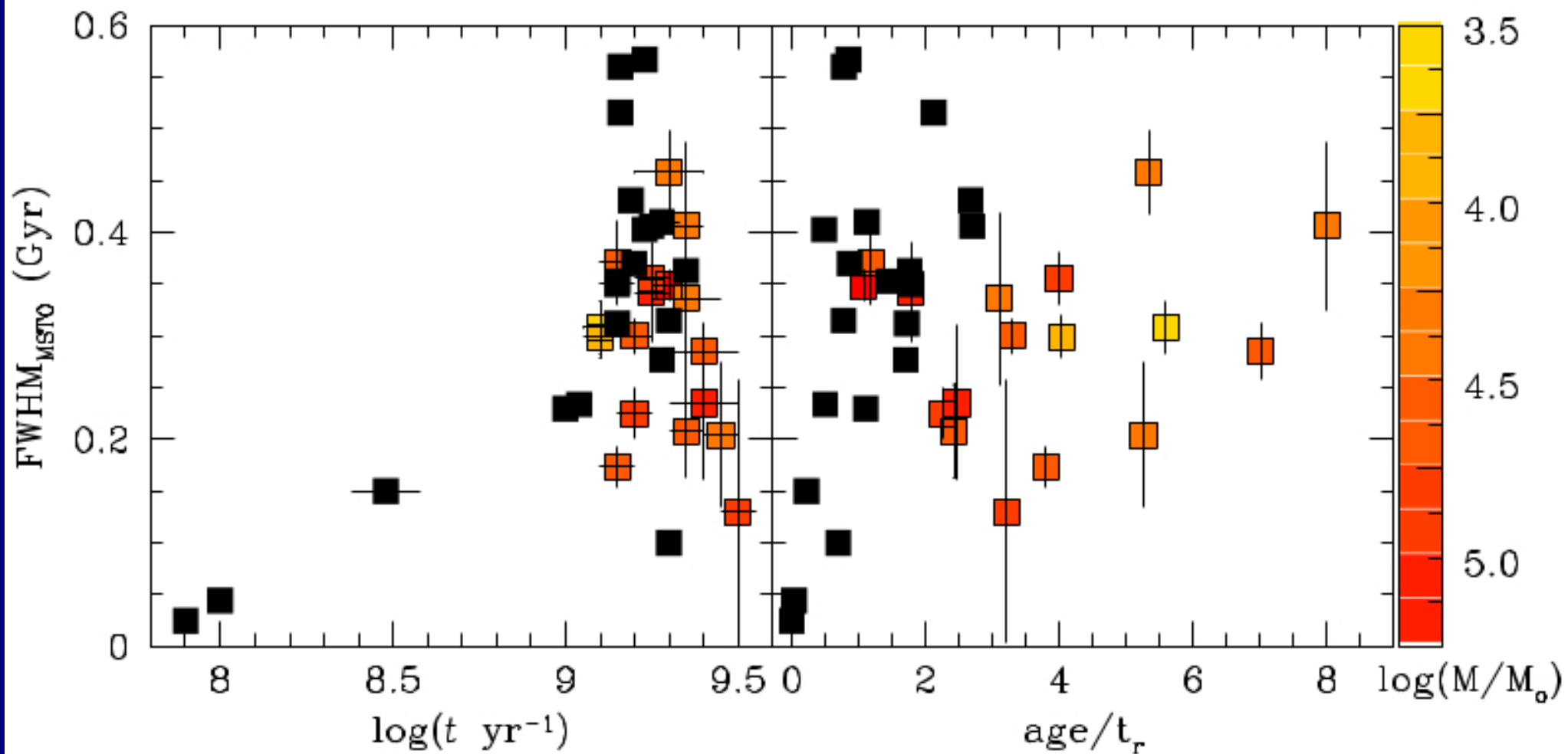


\triangle = observed eMSTO

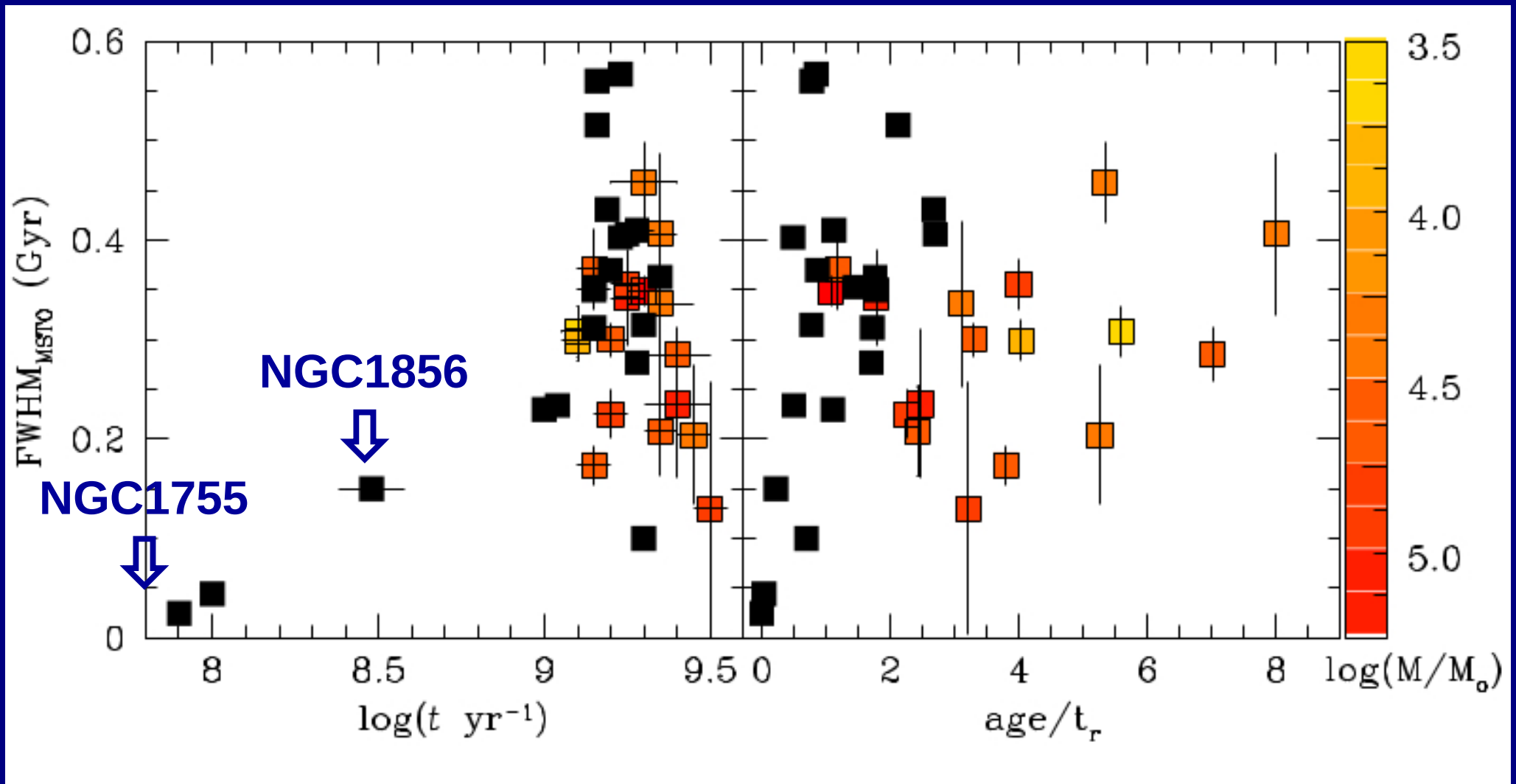
\square = modelled eMSTO

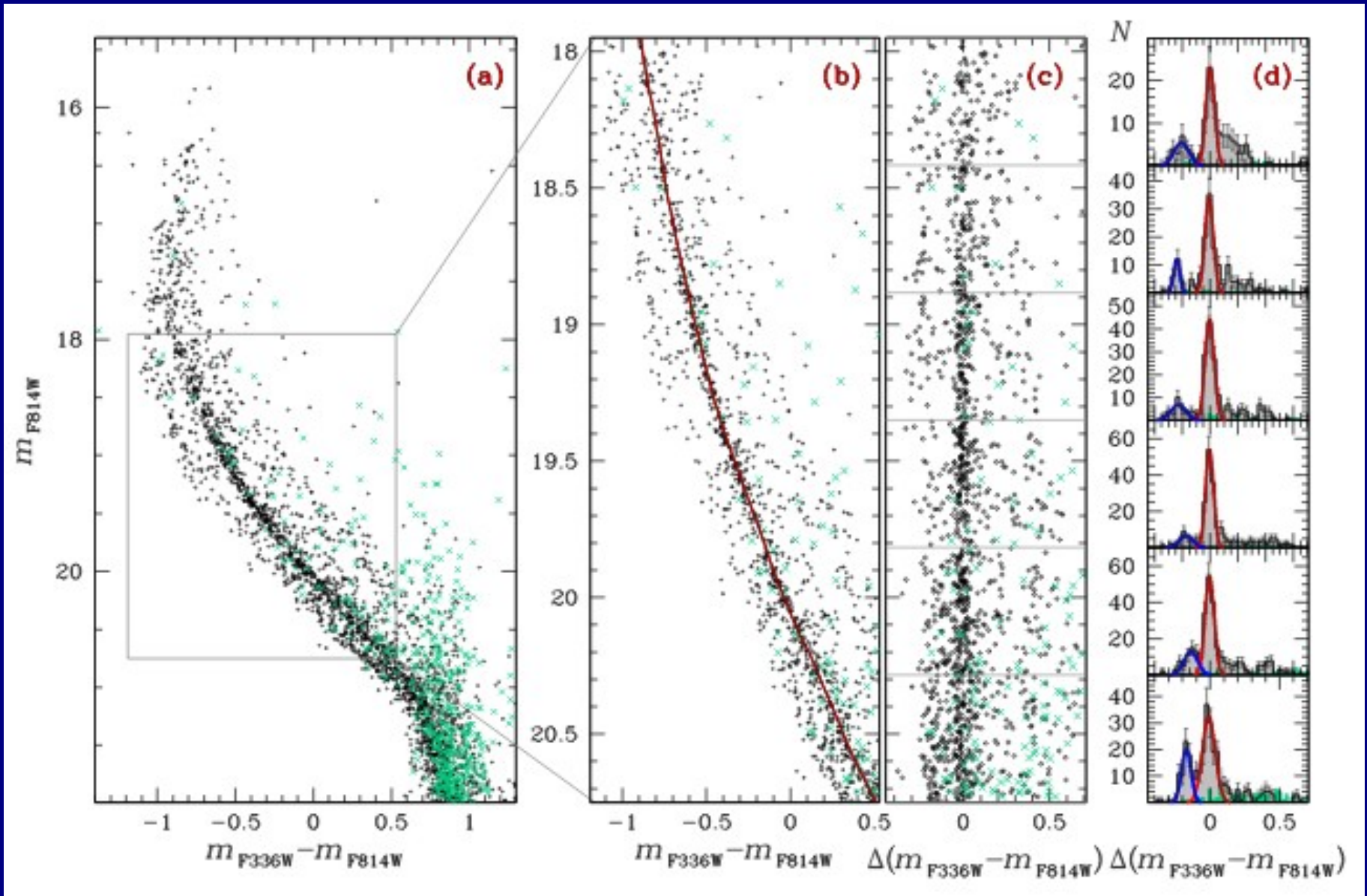
\bullet = true eMSTO





- ✓ Inverted V (Niederhofer et al. 2015, 2016)
- ✓ EMSTO seen at different t_r .





**NGC1755 (80 Myr, Milone et al. 2016),
NGC1856 (300 Myr, D'Antona et al. 2015)**

