

# Dwarf ellipticals in the eye of SAURON: dynamical & stellar population analysis in 3D

**Agnieszka Ryś (IAC)**

Jesús Falcón-Barroso (IAC), Glenn van de Ven (MPIA)



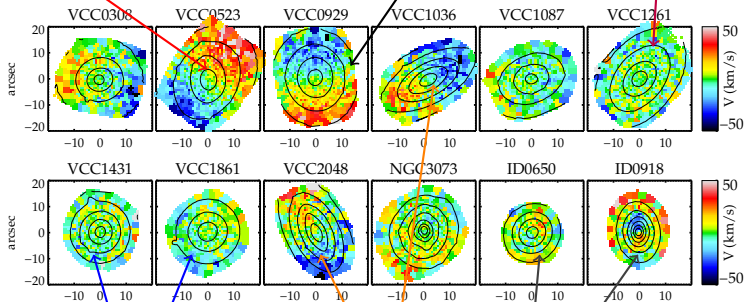
*"Galaxies in 3D across the Universe", Vienna, July 7, 2014*

# Stellar velocity & dispersion maps - diversity everywhere

● kinematic twist

● round rotator

● flat non-rotator



● round non-rotator

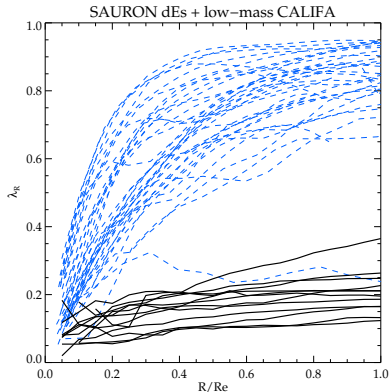
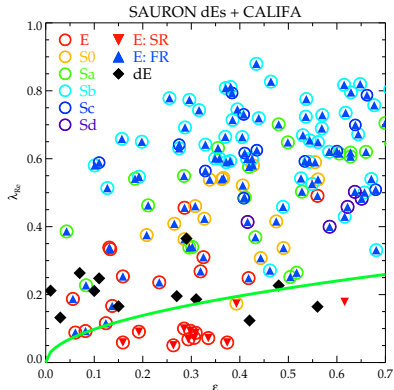
● flattened disk rotator

● kinematically decoupled core

(Ryś+ 2013b)

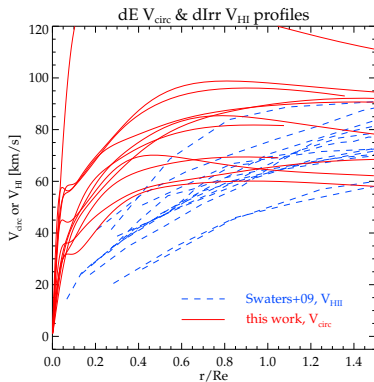
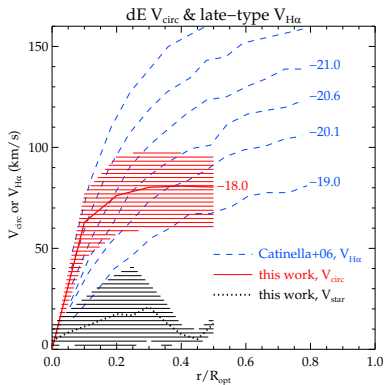
→ Line-strength maps equally diverse!

# Angular momentum of dEs is much lower than of their presumed late-type progenitors



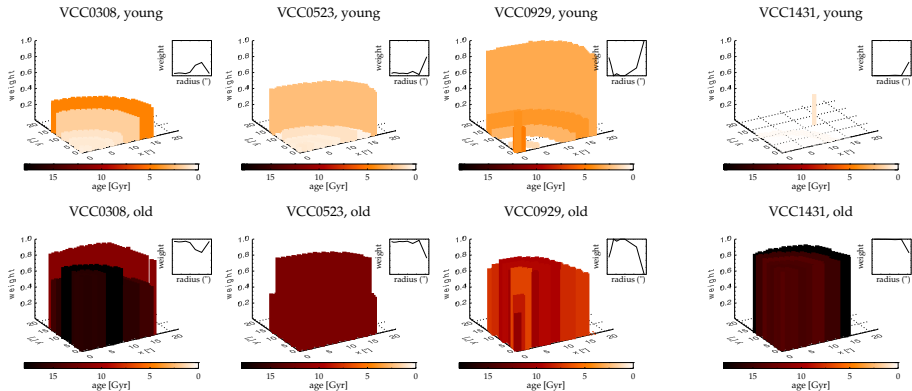
(Ryś+ 2014)

# Rotation curves of dEs are much steeper than those of late-type galaxies



(Ryś+ 2014)

# Spatially and temporally resolved star formation histories: SF still present a few Gyr ago



(Ryś+ 2014, submitted)

- we present stellar kinematic & absorption line-strength maps for a sample of 12 Virgo Cluster & field dEs
- we confirm & add to the variety of dE kinematic and stellar population properties,
- we show that dynamical properties of dEs favor the tidal harassment scenario (able to increase compactness, lower angular momentum & DM fraction)
- we see that SF activity was still strong a few Gyr ago or that the galaxies experienced a secondary SF burst, compatible with the above scenario.