

EDGE:

Engineering Dwarfs at Galaxy Formation's EDGE

Do cusp-core transformations happen in all dwarf galaxies?

How is the process affected by assembly history and/or environment?

What do we expect to see in the very faintest "ultra-faint" dwarfs?

RAMSES simulations:

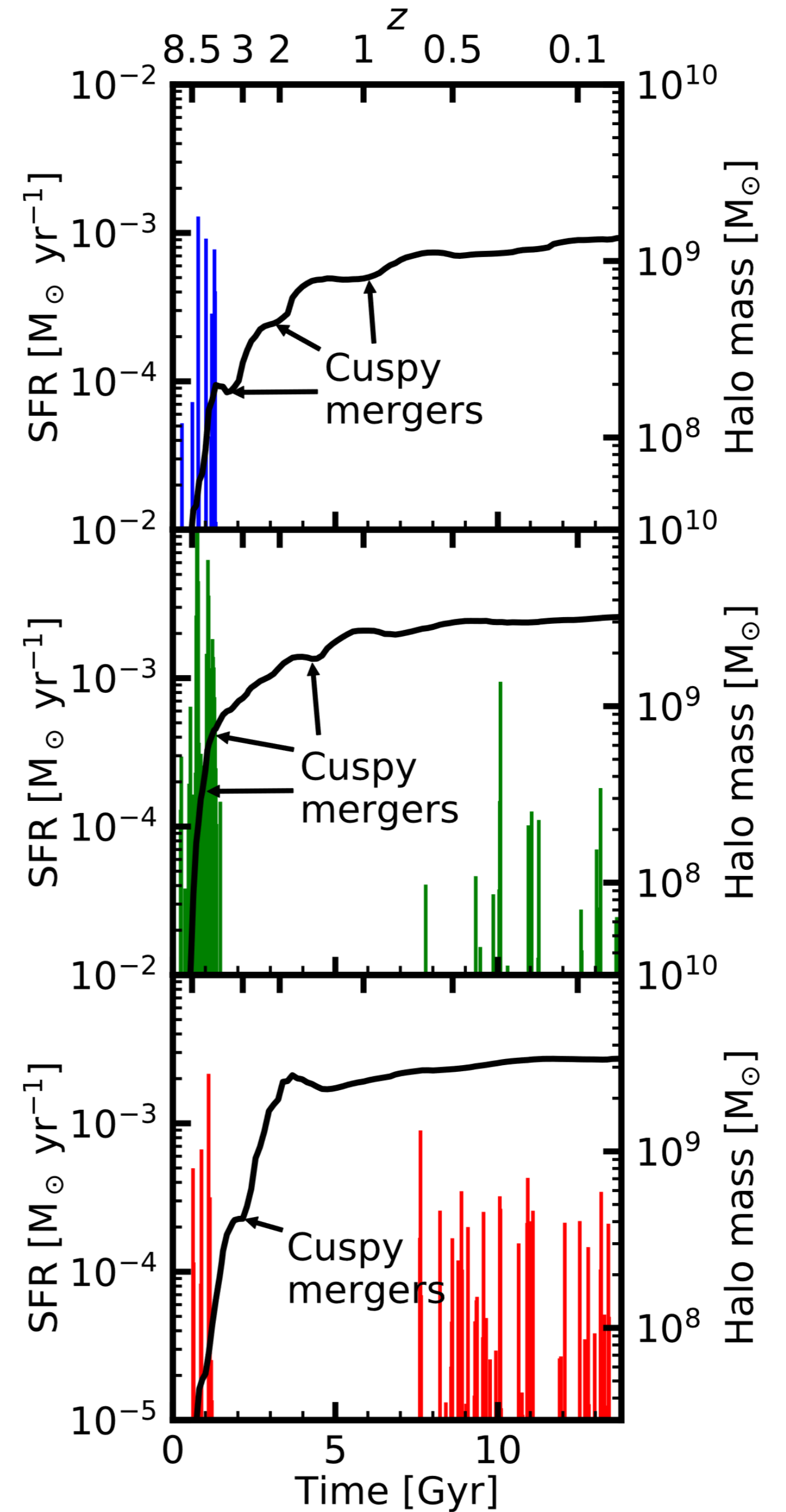
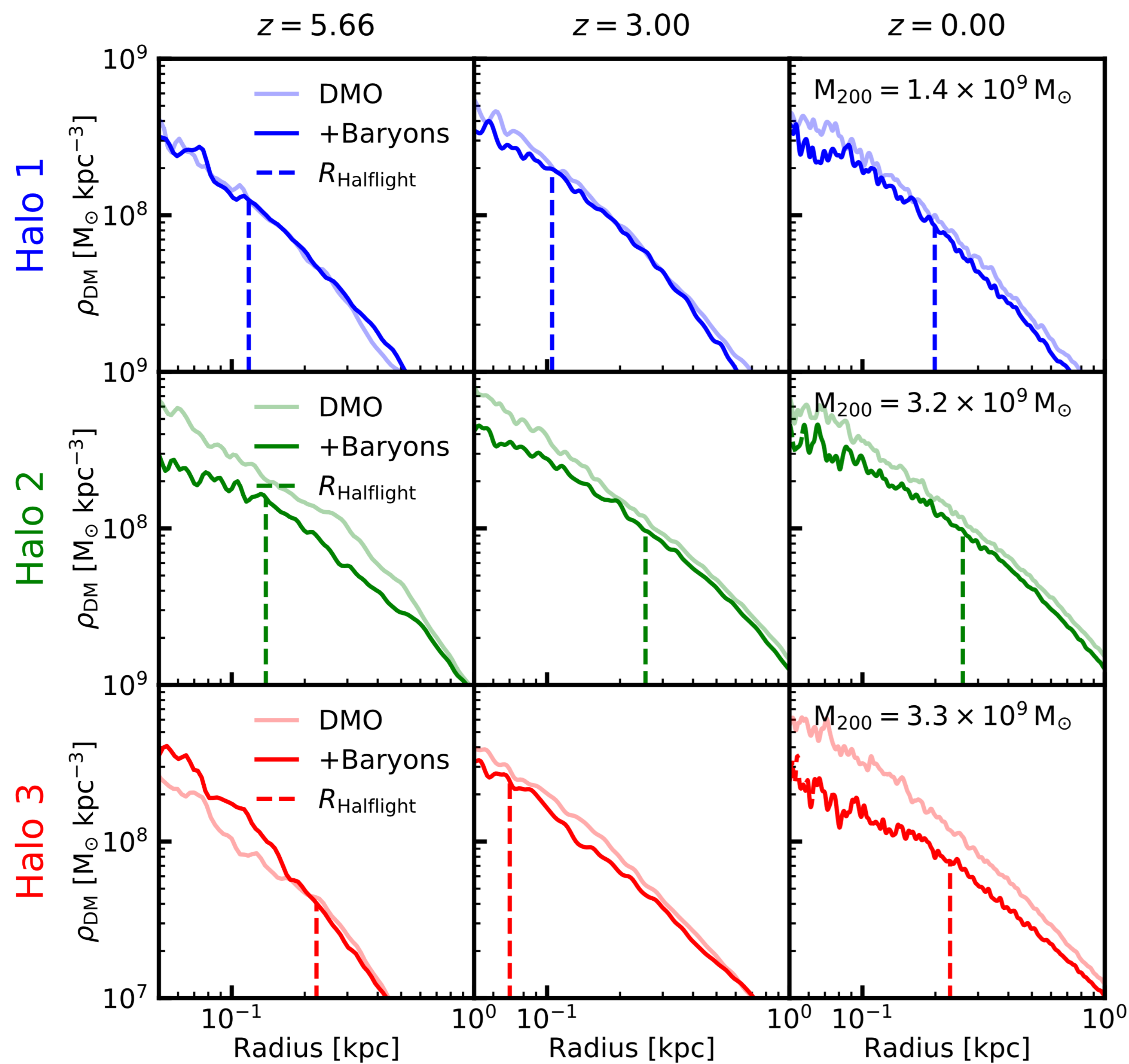
- ❖ Dark matter mass resolution: $\sim 1000M_{\odot}$
- ❖ Gas mass resolution: $\sim 20M_{\odot}$
- ❖ Spatial grid cell resolution: $\sim 3\text{pc}$

Sub-grid physics as in:

Agertz O... **Matthew Orkney** et al., 2019, arXiv: 1904.02723

All plots produced with the assistance of PYNBODY & TANGOS





Halo 1:
Lowest mass
halo. Dense cusp
at all times.

Halo 2:
Central density
is reduced early
on, but a cusp is
regrown.

Halo 3:
Central density
is reduced only
at late times.