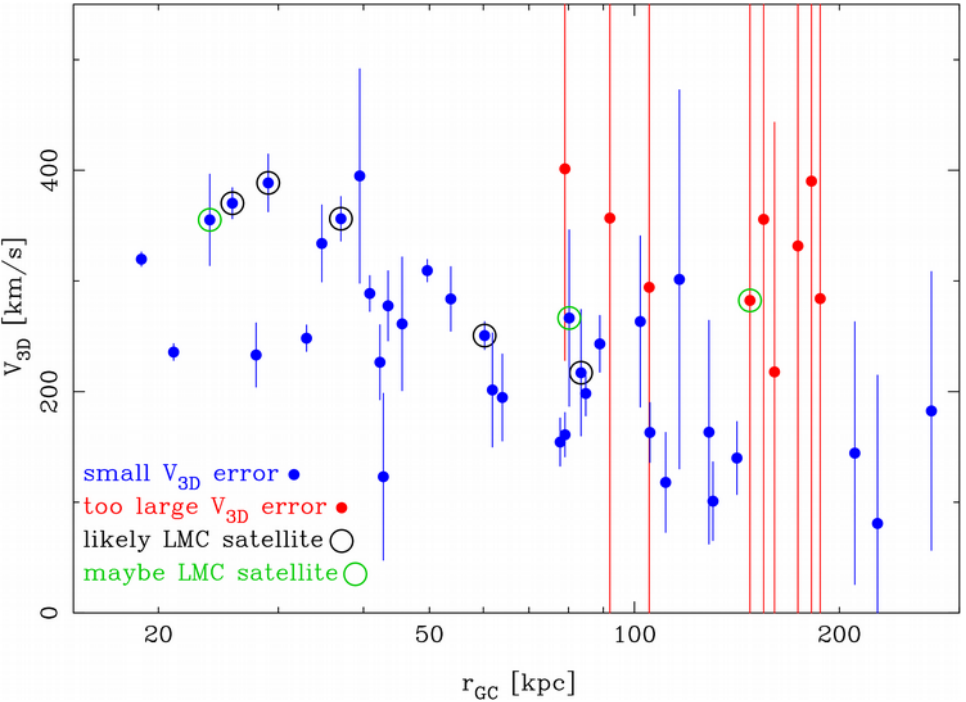
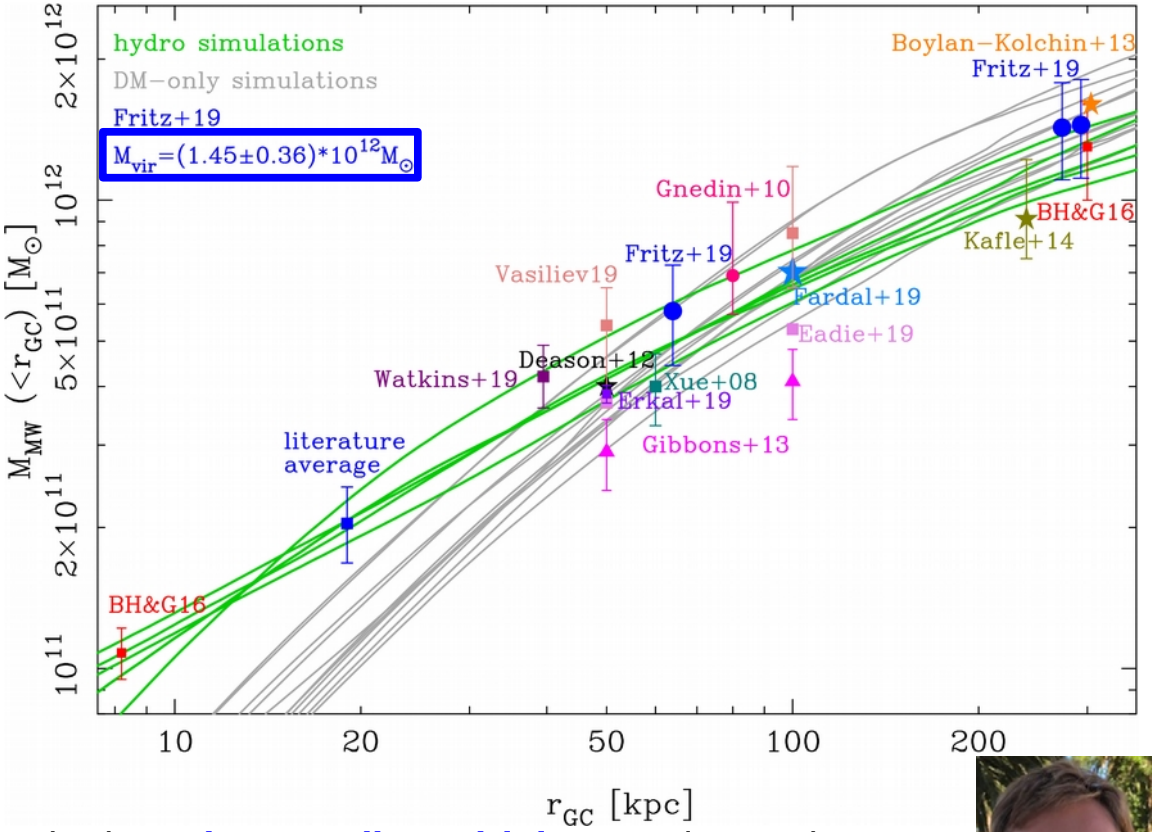
The mass of the Milky Way from 3D velocities of 45 dwarf galaxies





We use ***Gaia*-DR2 based systemic proper motions**:
36 from Fritz+18 A&A, 619, 103
4 from Fritz+19 A&A, 623, 129
+literature values for: Magellanic Clouds, BooIII, SagII, Ant II
The sample is also divided radially to obtain M(<r) in the inner and outer regions.
We test for LMC influence by excluding former satellites of it.
Method: variant of the Watkins et al 2010 mass estimator which uses V_3D and r_GC.
We correct for biases with cosmological simulations.

We obtain an **intermediate virial mass**, larger than 1 trillion Msun. A similar mass estimate is also obtained from NIHAO hydrodynamical simulations when selecting halos to match the MW mass within 19 kpc

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