

# Using the DiskMass Survey and Local Group dwarf galaxies to test theories of structure formation

Garry W. Angus  
*Vrije Universiteit Brussels*

February 12th, 2014

## **Abstract**

The DiskMass Survey of low inclination (close to face-on) disk galaxies invokes the simultaneous measurement of stellar vertical (out of the disk plane) velocity dispersions and disk rotation speed. This combination allows us to break the degeneracy between the dark matter halo and stellar mass to light ratio. It is also an extremely strong test of alternative theories without galactic dark matter, which I will demonstrate. I also show how N-body simulations of local group dwarf galaxies can provide unique insight into their origin, survival and shapes.