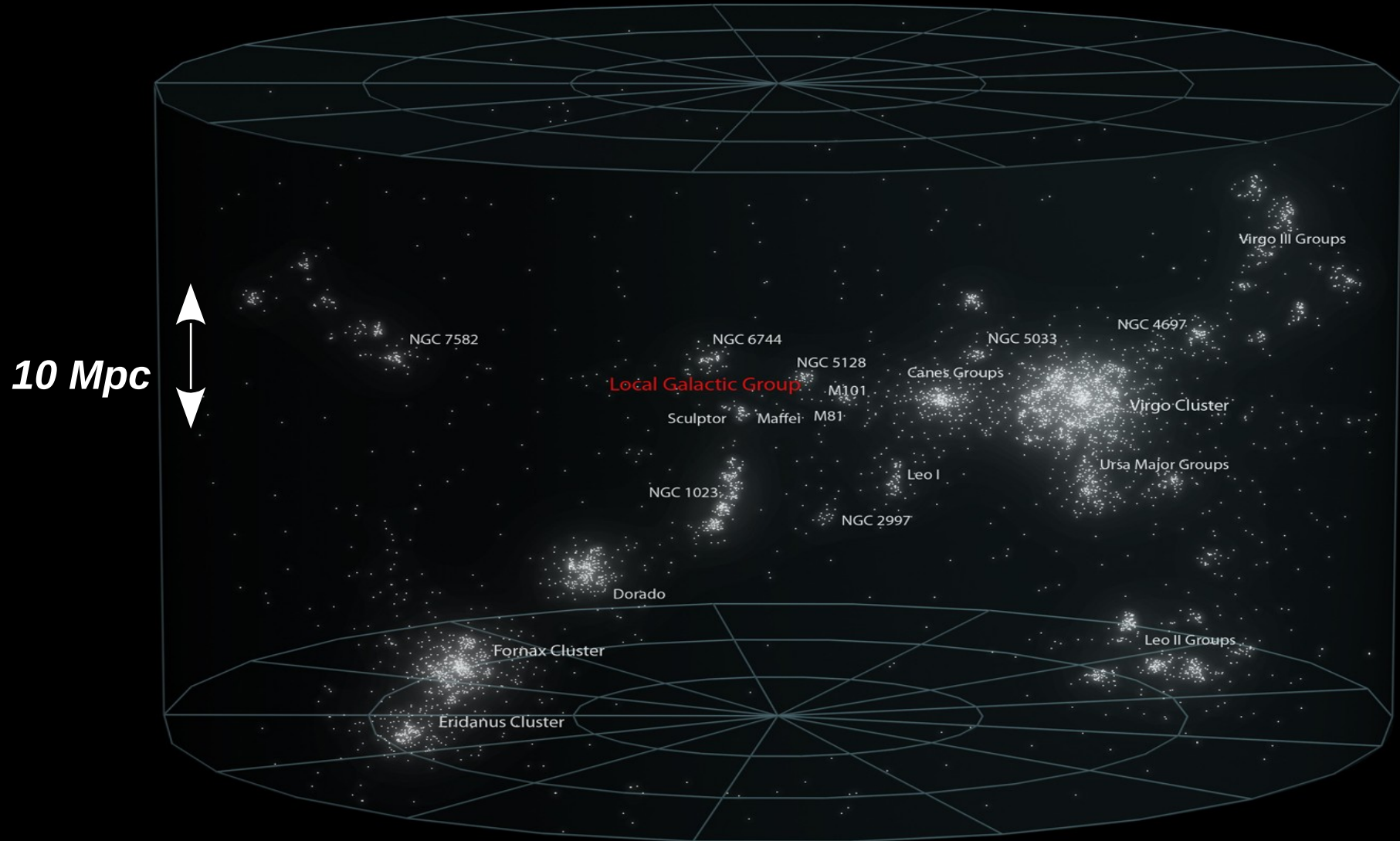


Outside our galaxy

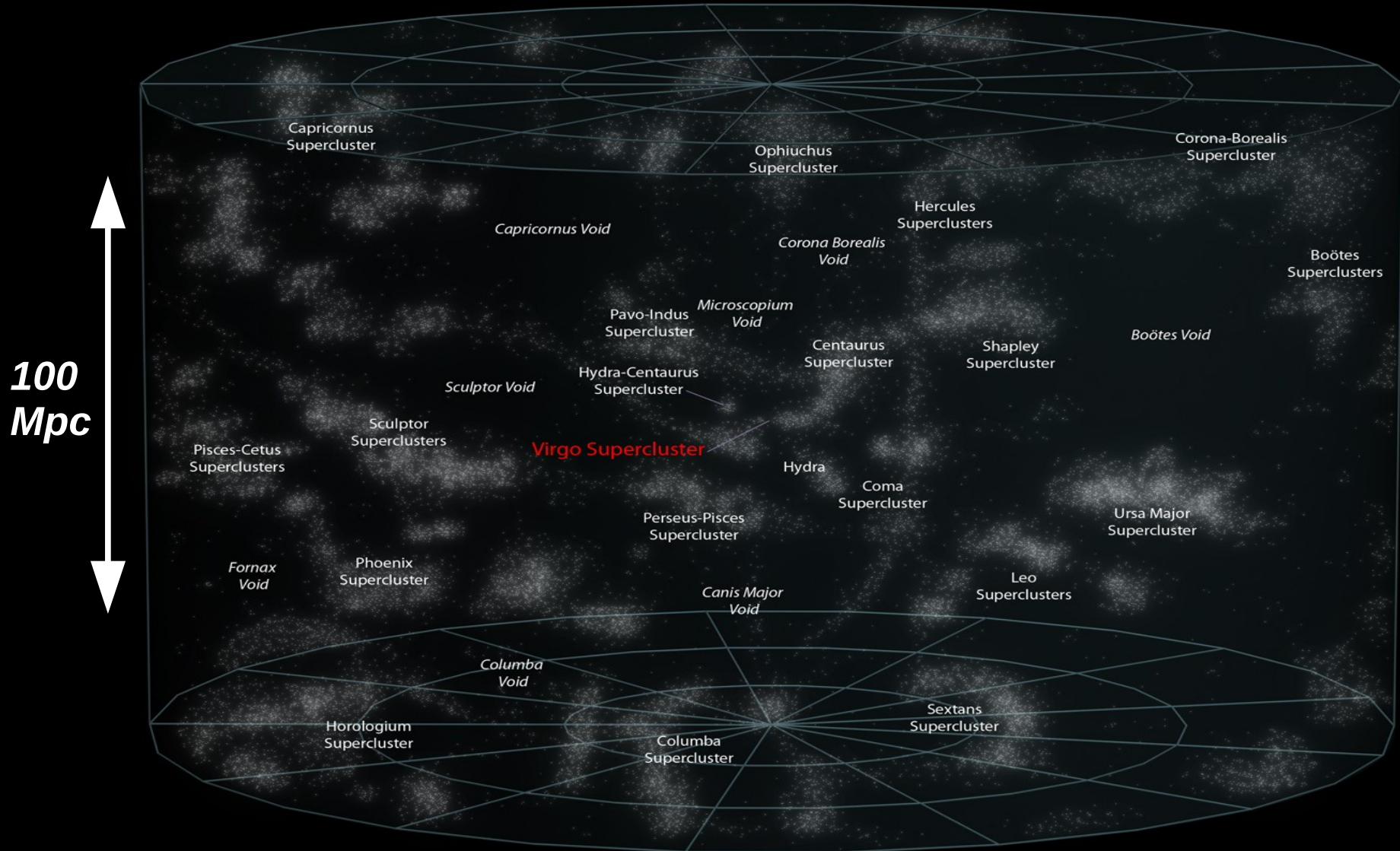
VIRGO SUPERCLUSTER



Virgo Cluster



LOCAL SUPERCLUSTERS



Spiral Galaxies



Galaxy Groups

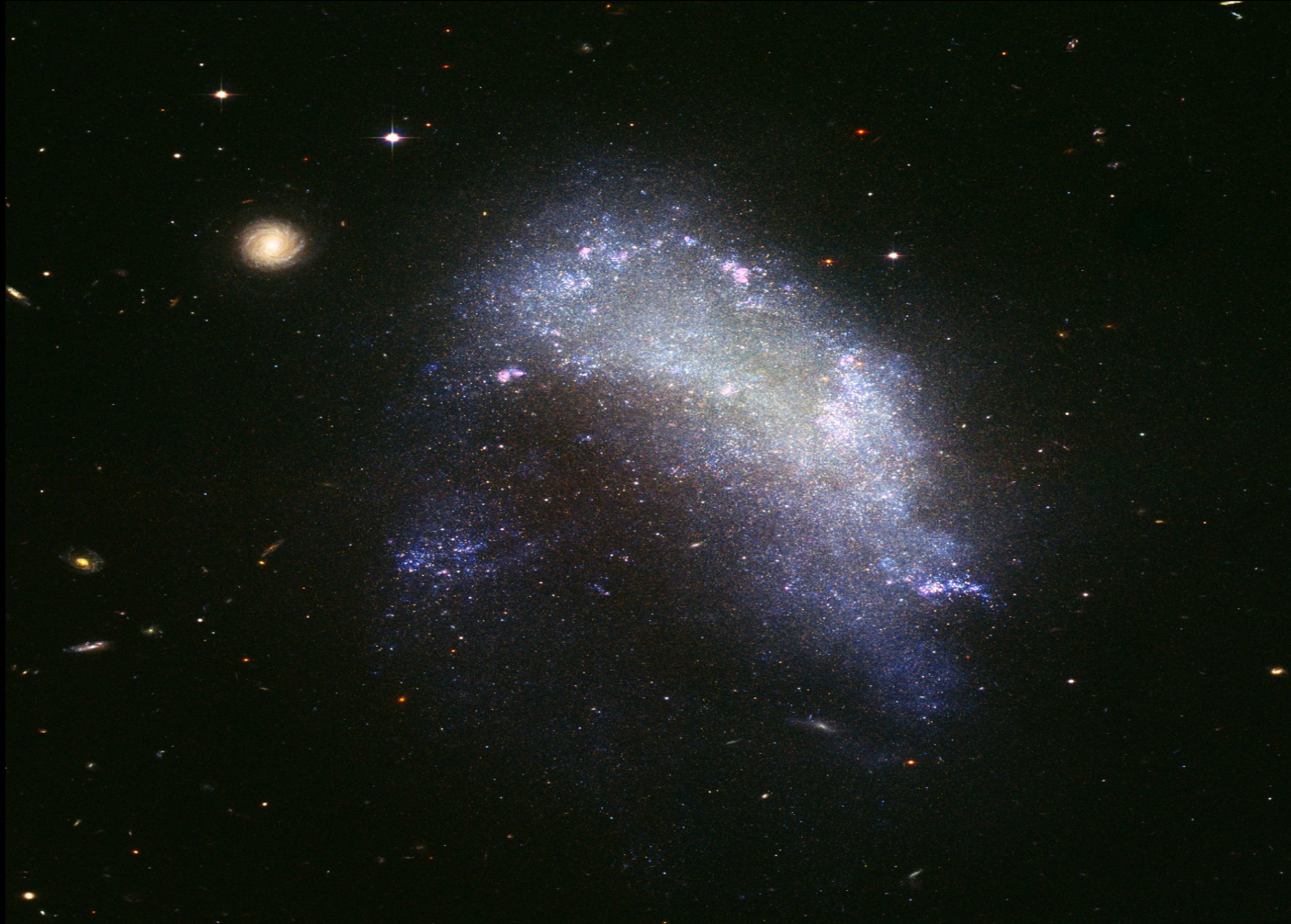


Local Group



Hickson Compact Group

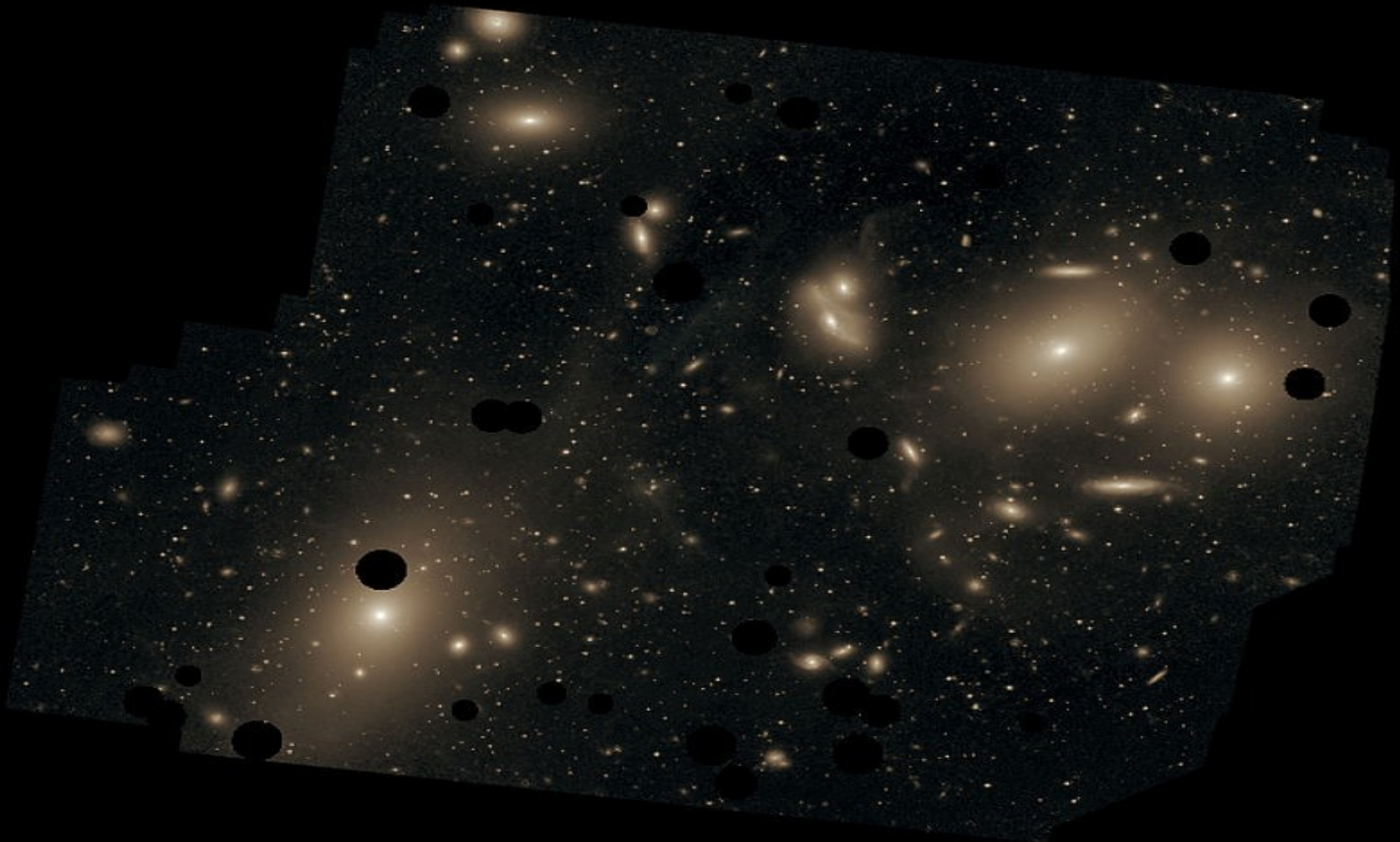
Irregular Galaxies



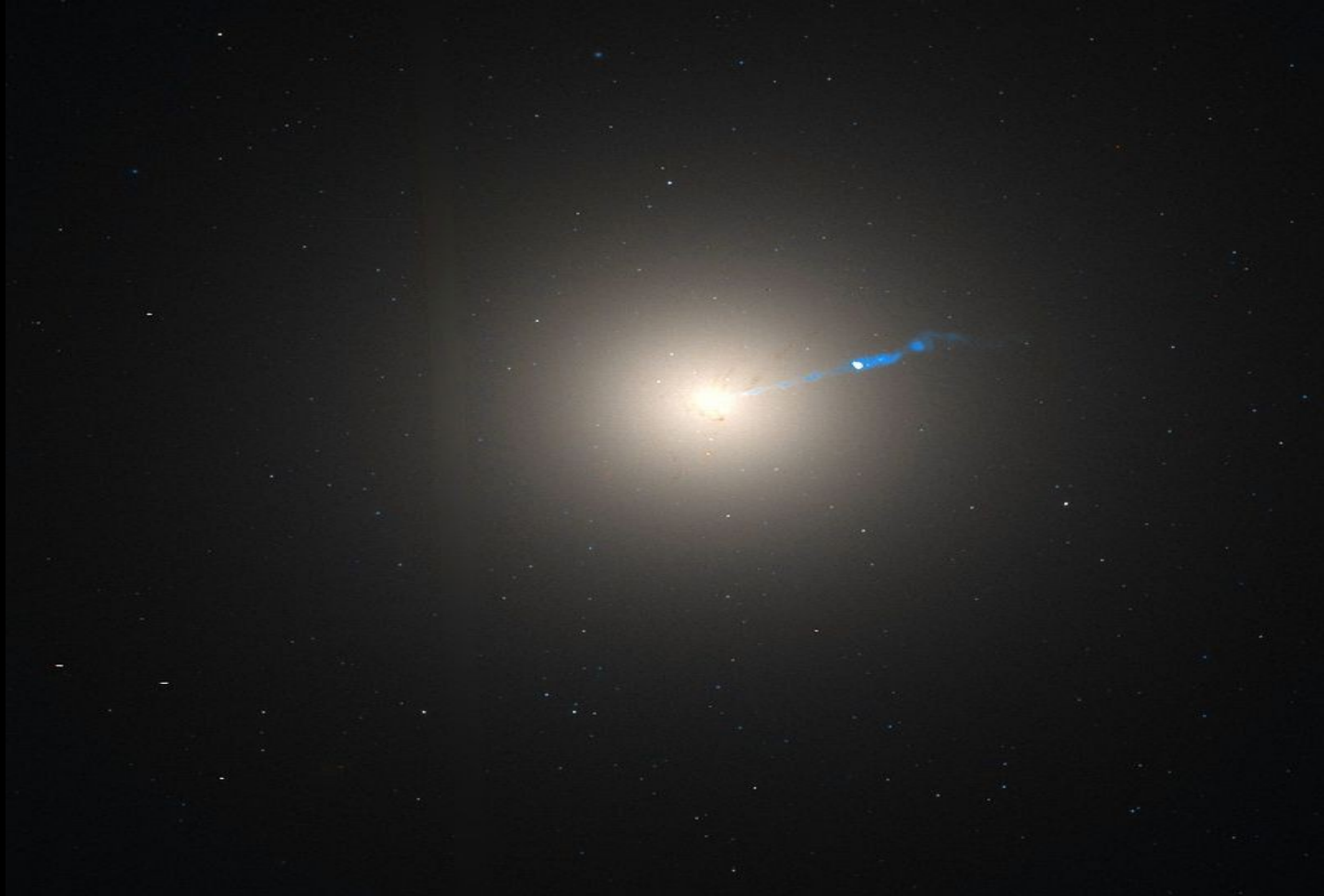
Elliptical Galaxies



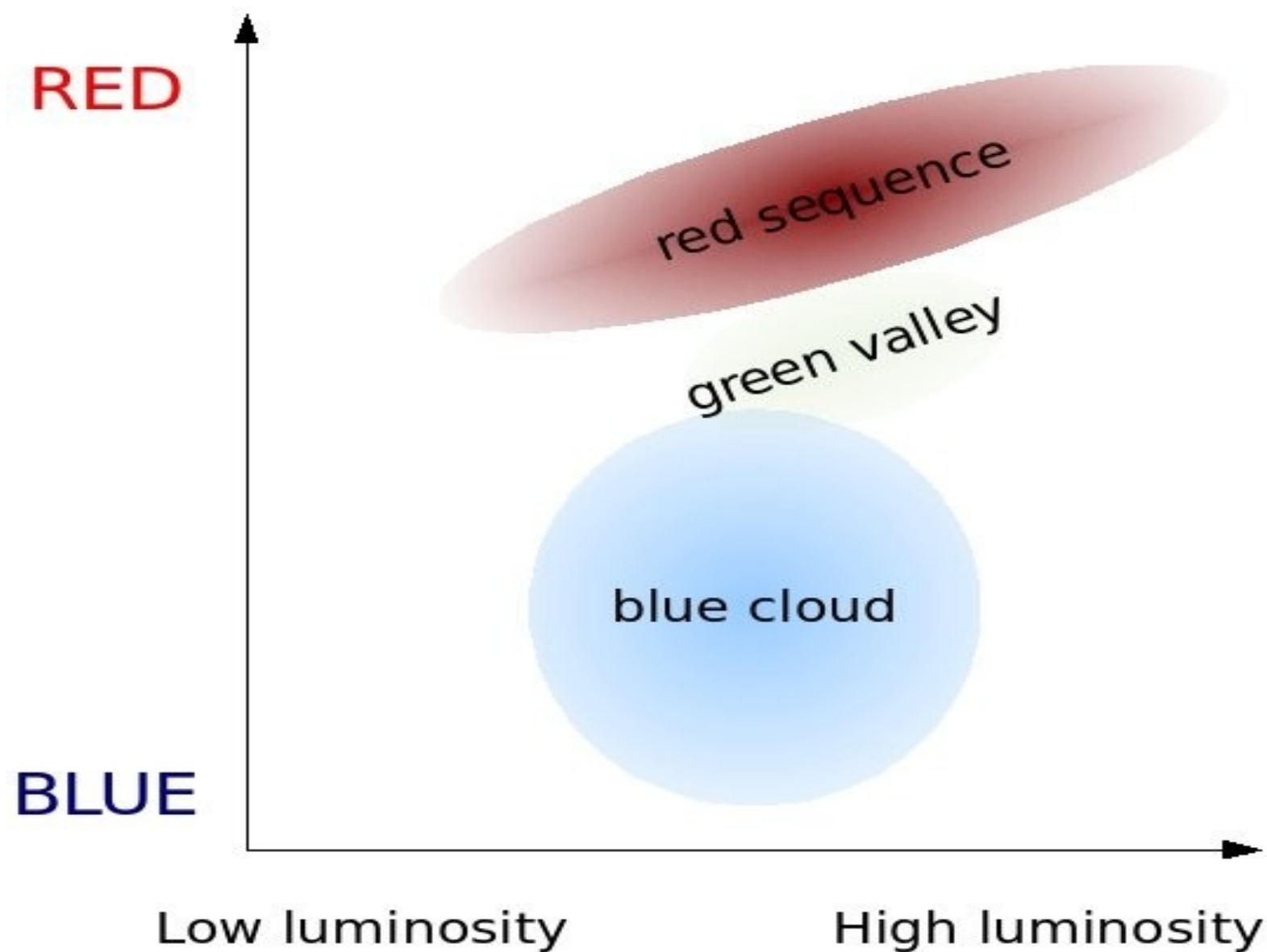
Virgo Cluster

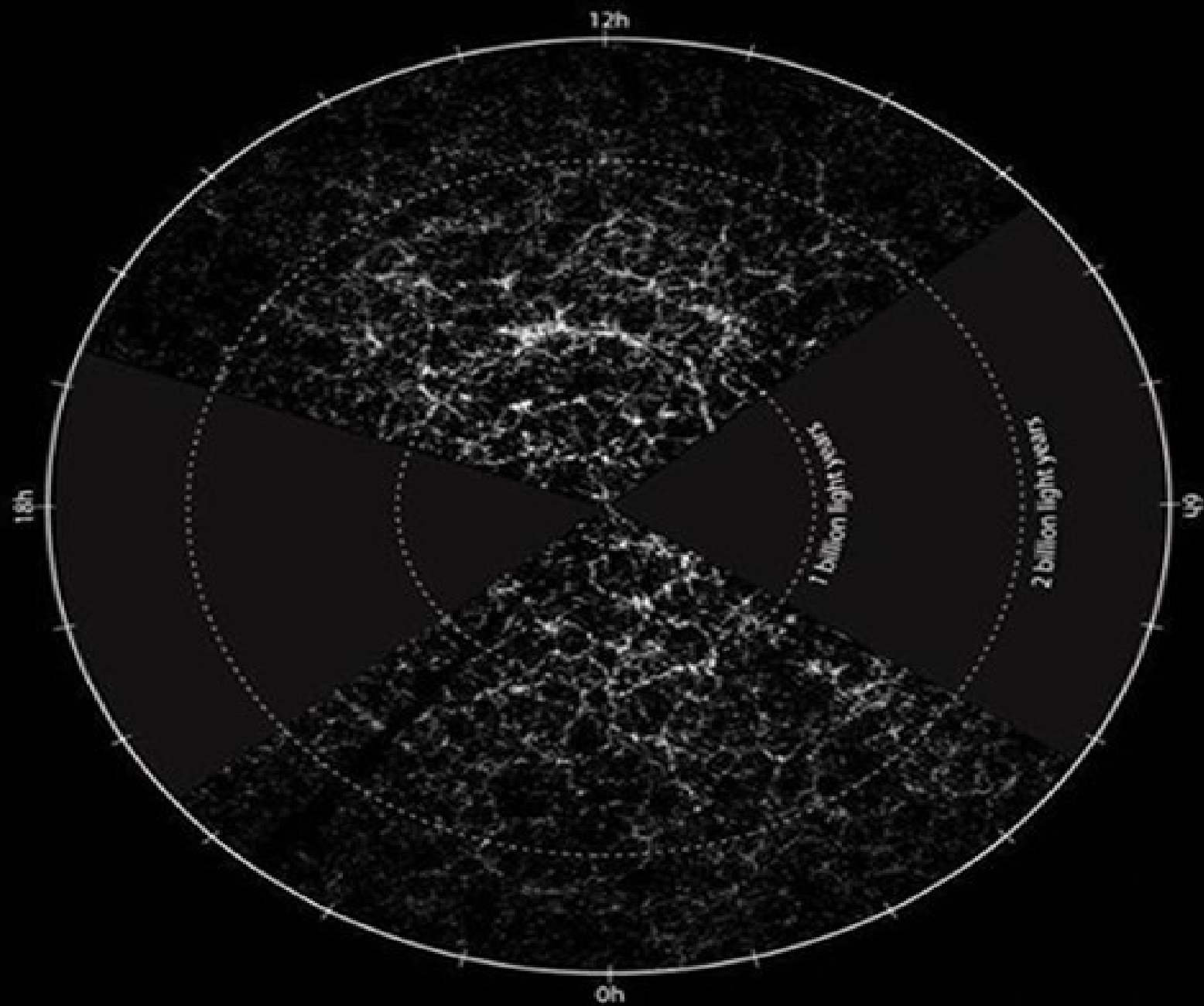


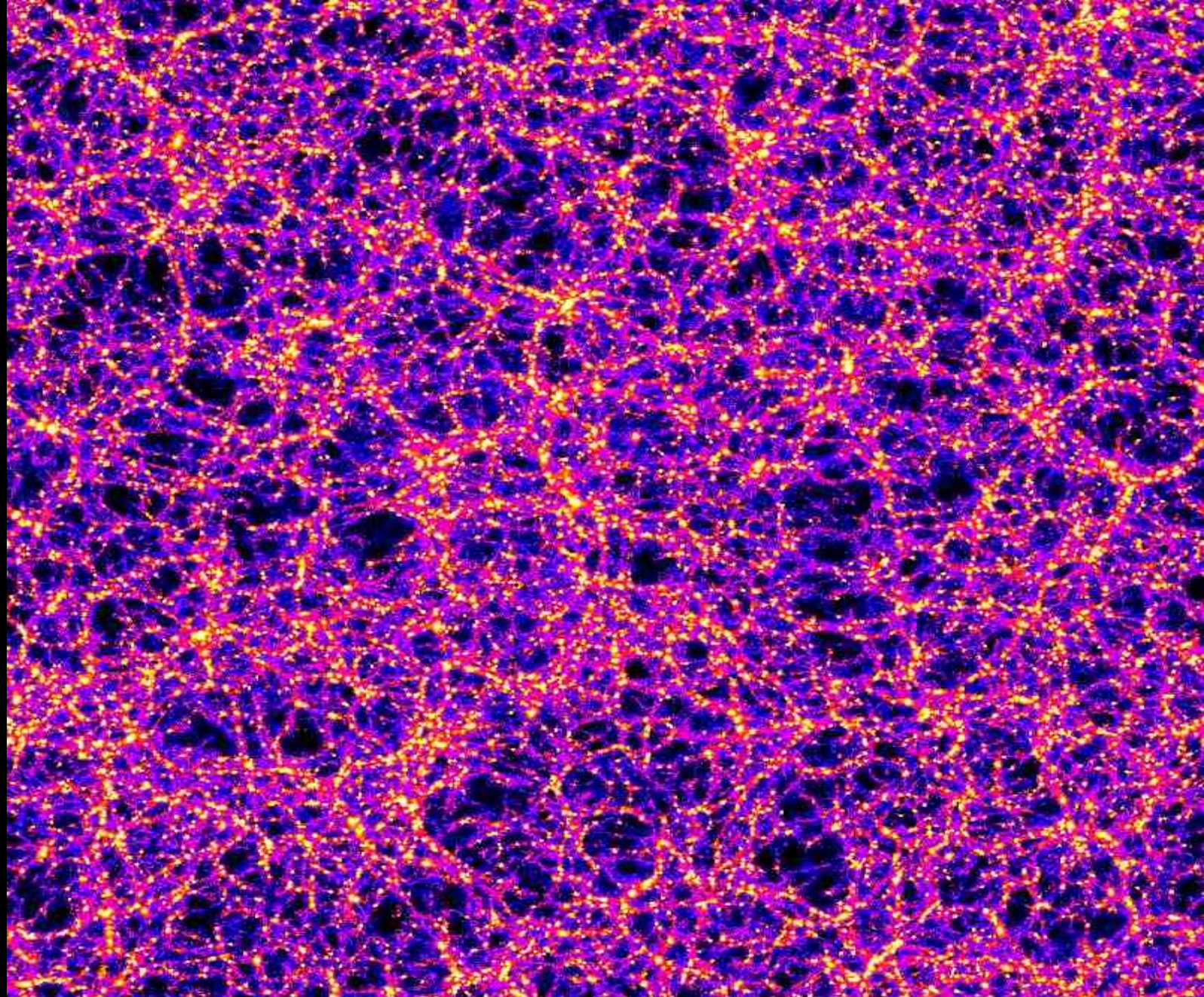
M 87 - Virgo Cluster cD



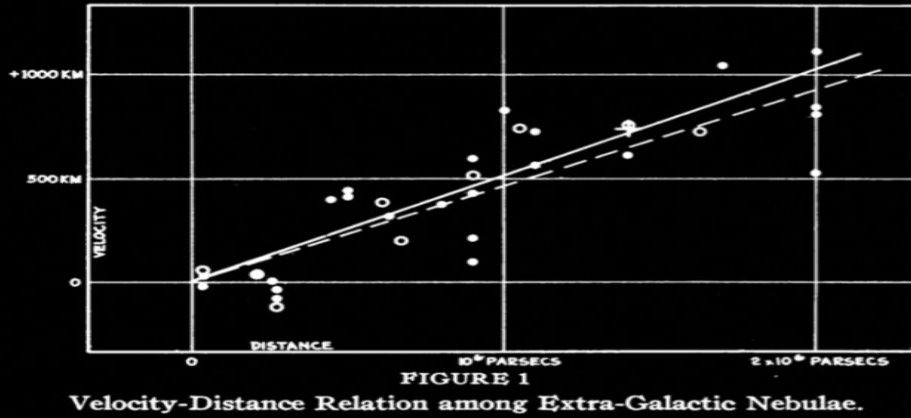








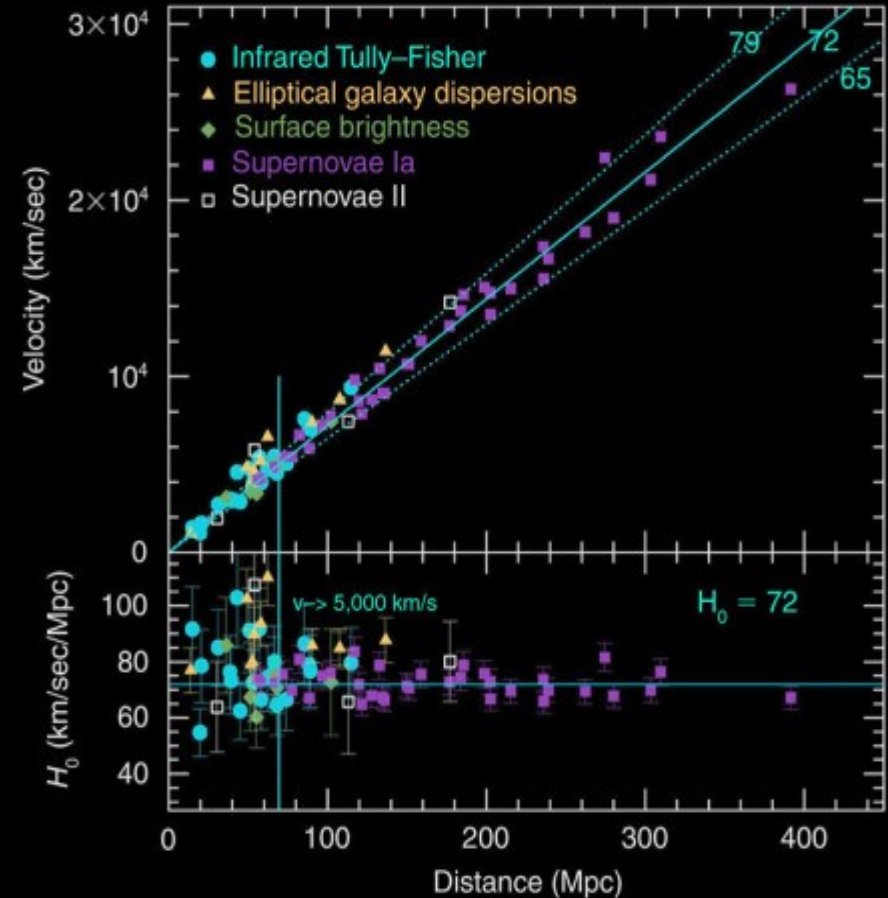
Hubble Law



Edwin Hubble, Proceedings of the National Academy of Sciences, vol. 15 no. 3, pp.168-173

$$v = H_0 d$$

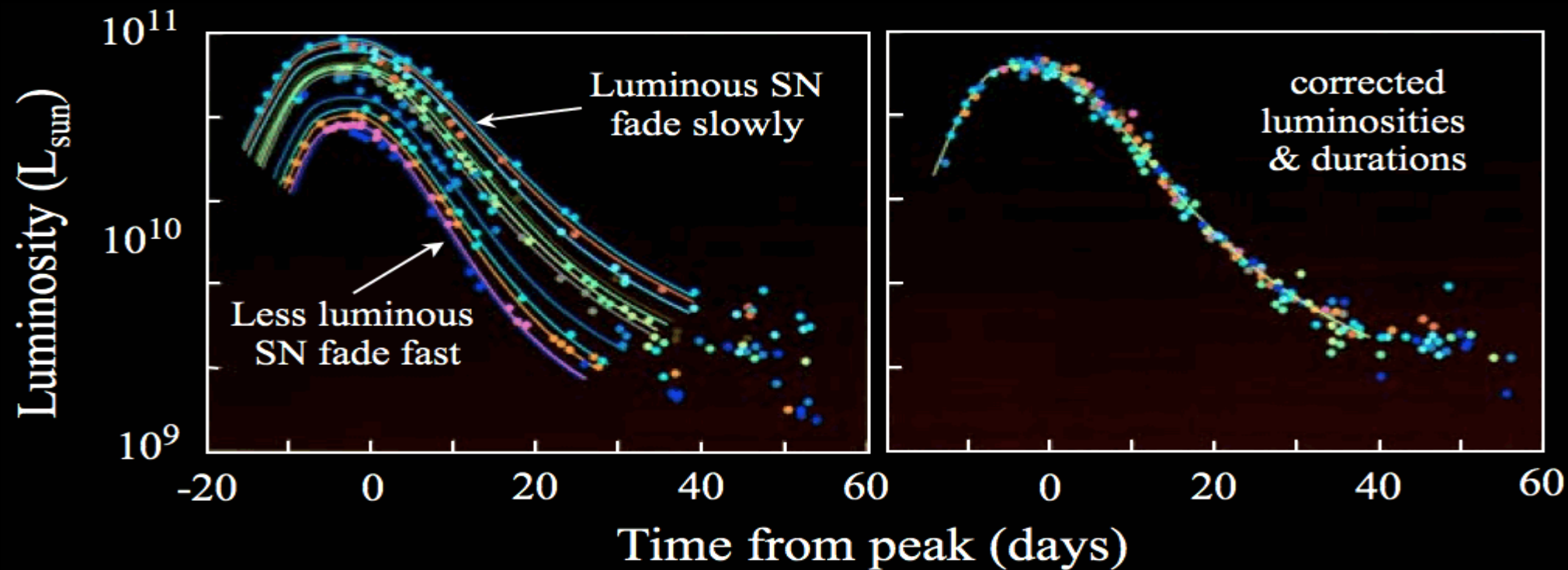
$$H_0 \sim 72 \text{ km/s / Mpc}$$

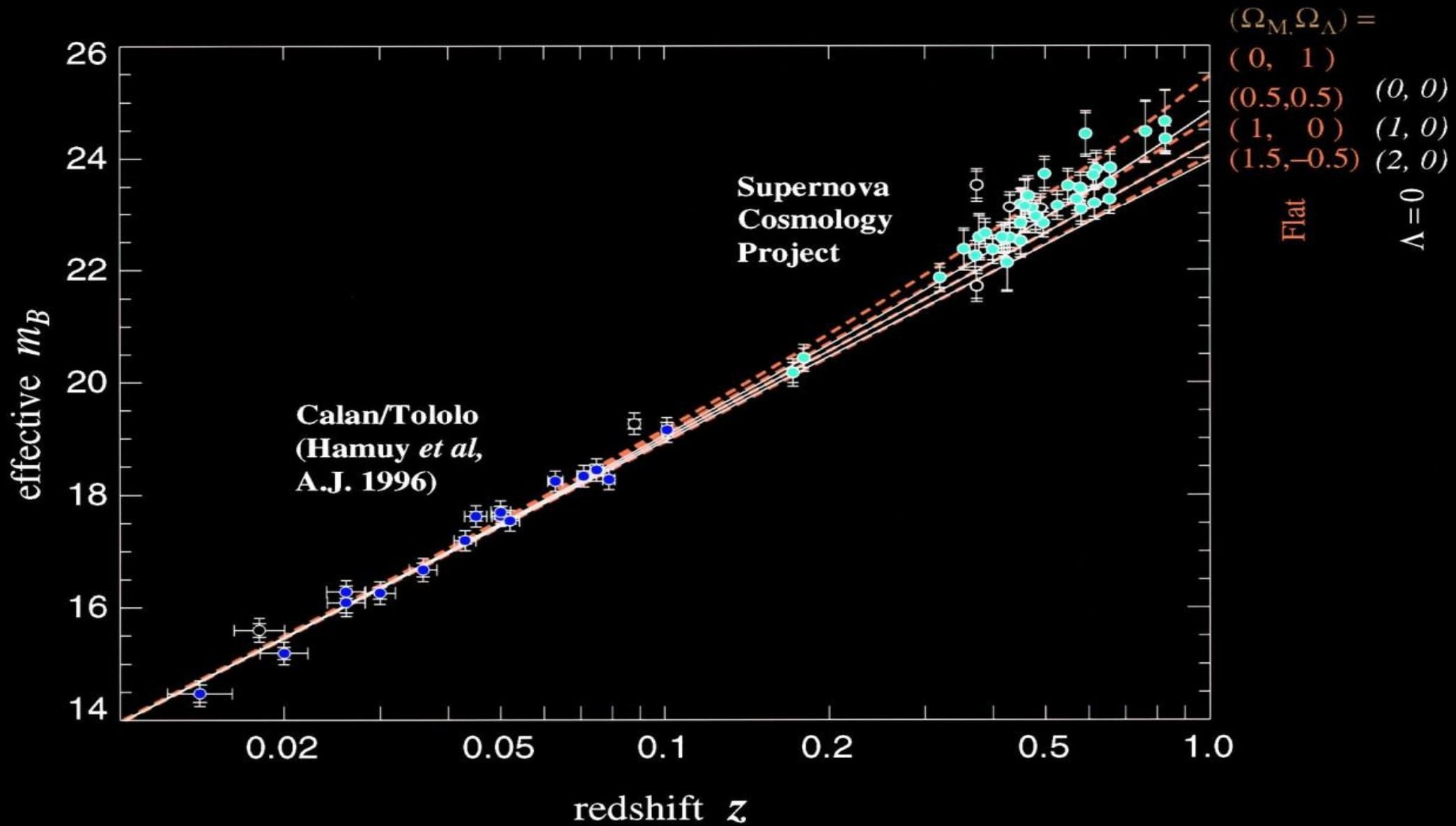


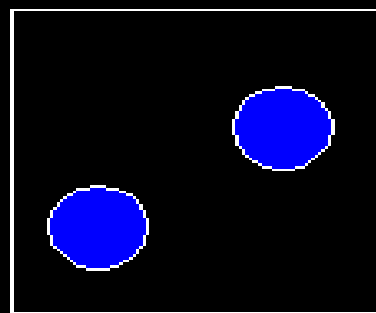
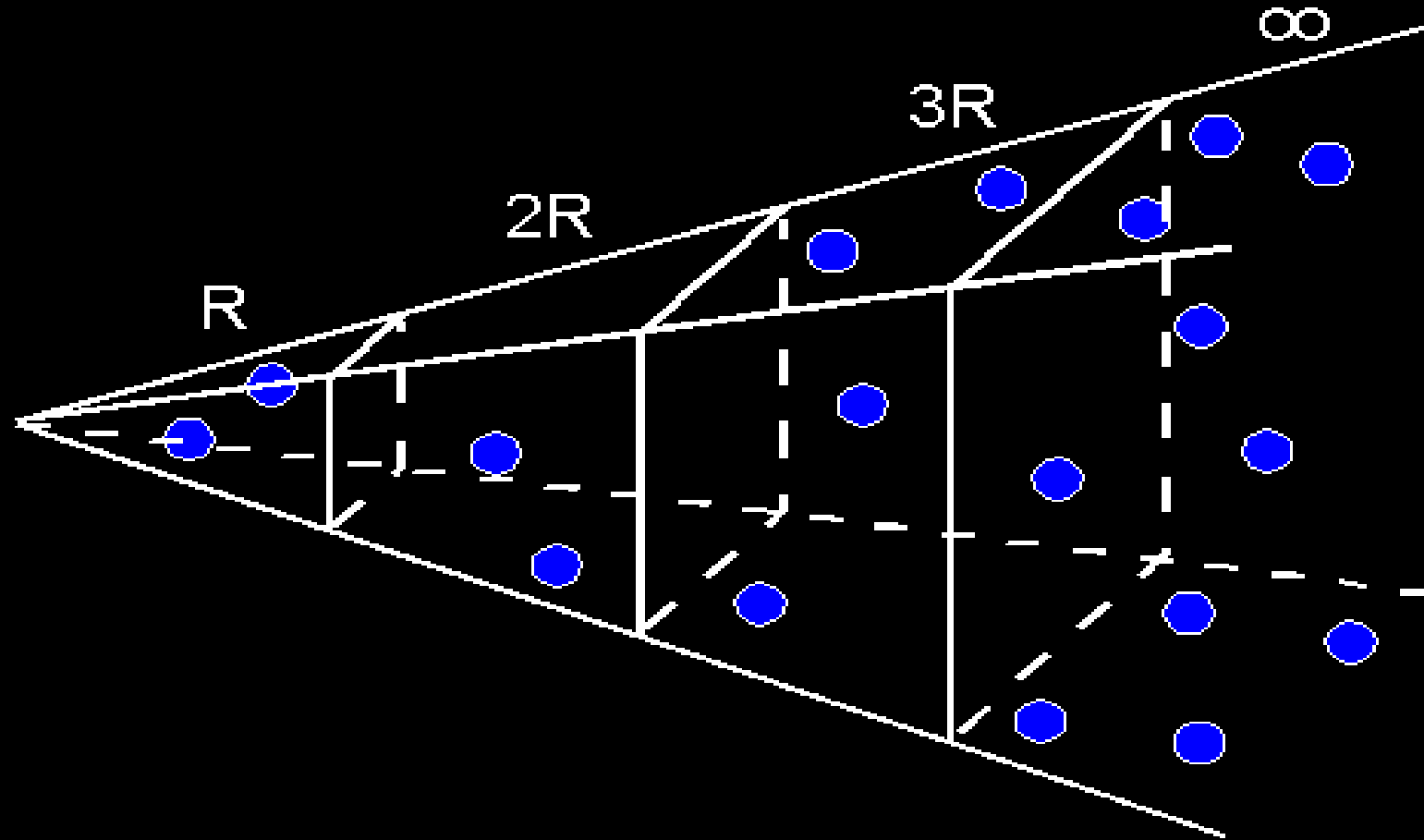
B

(Wendy L. Freedman, Observatories of the Carnegie Institution of Washington, and NASA)

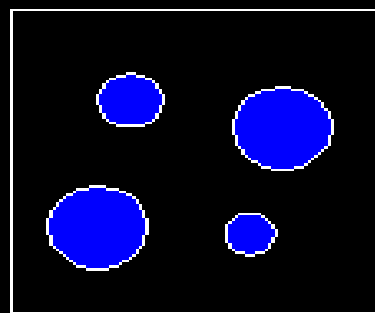
SN Ia as standard candles



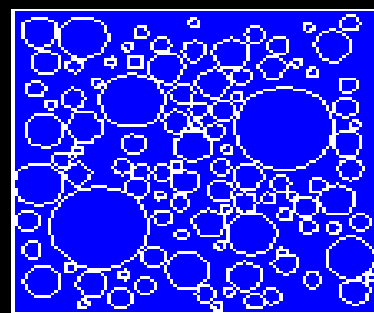




R



$2R$



∞