



Inner shell boundary at R_i : solid circle

Outer shell boundary at R_{i+1} : dashed circle

$$\text{Volume of shell} = \frac{4}{3}\pi[R_{i+1}^3 - R_i^3]$$

$$\text{Mass in shell} = \sum_{j \in \text{black points}} M_j$$

$$\text{Density of shell} = \text{Mass in shell} / \text{Volume of shell}$$