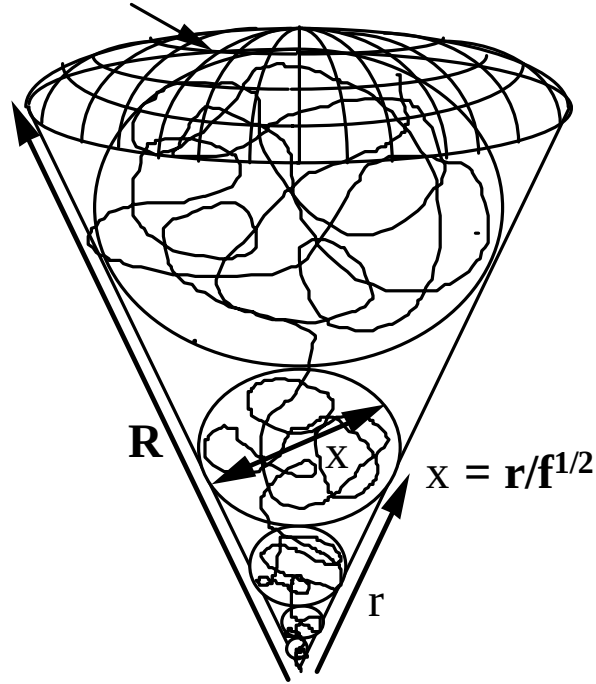


5.17 In theta condition,

surface area of a cone sector $4\pi R^2/f$



In θ -condition, $\xi(r) \approx b/\phi(r)$, $\phi(r) \approx b / \xi(r) \approx b f^{1/2} / r$.
Mass conservation condition:

$$N \approx \int_0^R \left(\frac{\phi(r)}{b^3} \right) \cdot 4\pi r^2 dr \approx \frac{1}{b^3} \int_0^R \frac{b\sqrt{f}}{r} \cdot r^2 dr \approx \sqrt{f} \left(\frac{R}{b} \right)^2$$

$$R \approx b \left(\frac{N}{f} \right)^{1/2} \cdot f^{1/4}$$

5.18 Athermal solvent,

$$\xi(r) \approx b / \phi(r)^{3/4} \approx r / f^{1/2}, \quad \phi(r) \approx (b / r)^{4/3} \cdot f^{2/3}$$

By the similar procedure, $N \approx f^{2/3} \cdot (R / b)^{5/3}$

$$R \approx b (N/f)^{3/5} \cdot f^{1/5}$$