Analytical models of infant Radio Sources
Rosie Bolton and Paul Alexander
Cavendish Astrophysics, University of Cambridge, Department of Physics.

Diagram:
- **Jet**: \(Q, \rho_j, v_j\)
- **Cocoon**: \(p_c, \rho_c\)
- **Atmosphere**: \(\rho_0\)
- **Hotspot**: \(p_h, V_h\)

Mathematical expressions:
- \(\rho_0 \dot{r}^2 \sim p_c\)
- \(L_j\)
- \(x, r\)

Graph:
- **Cocoon**: \(~1\text{kpc}\)
- **Hotspot**: \(~1\text{pc}\)
- **Optically thick**: \(+5/2\)
- **Optically thin**: \(-0.7\)