

E. Fixed points are Ricci-flat metrics.

Linear stability is controlled by the spectrum of the Lichnerowicz operator:

$$g_{\mu\nu} = \hat{g}_{\mu\nu} + h_{\mu\nu}$$

↖ Ricci-flat

$$\frac{\partial h_{\mu\nu}}{\partial \lambda} = -\Delta_L h_{\mu\nu} + 2\nabla_{(\mu} v_{\nu)} + \mathcal{O}(h^2)$$

↖

$$\Delta_L h_{\mu\nu} \equiv -\nabla^2 h_{\mu\nu} - 2R_{\mu}{}^{\alpha}{}_{\nu}{}^{\lambda} h_{\alpha\lambda}$$

↖  $v_{\alpha} \equiv \frac{1}{2} \partial_{\alpha} h_{\mu}{}^{\mu} - \nabla_{\mu} h^{\mu}{}_{\alpha}$