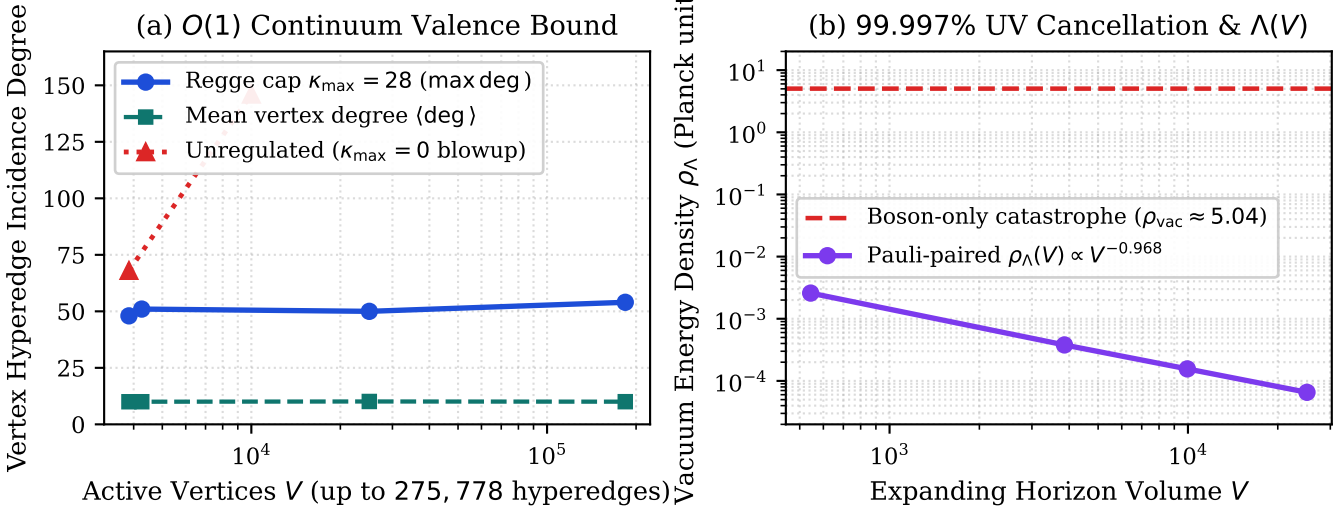
(a) $O(1)$ Continuum Valence Bound
Regge cap $\kappa_{\max} = 28$ (max deg)
Mean vertex degree ⟨deg⟩
Unregulated ($\kappa_{\max} = 0$ blowup)
Vertex Hyperedge Incidence Degree
Active Vertices $V$ (up to 275, 778 hyperedges)
(b) 99.997% UV Cancellation & $\Lambda(V)$
Boson-only catastrophe ($\rho_{\text{vac}} \approx 5.04$)
Pauli-paired $\rho_\Lambda(V) \propto V^{-0.968}$
Vacuum Energy Density $\rho_\Lambda$ (Planck units)
Expanding Horizon Volume $V$