

- Nonconformal metric dual to a confining gauge theory

$$ds^2 = \frac{R^2}{z^2} e^{\varphi(z)} (\eta_{\mu\nu} dx^\mu dx^\nu - dz^2)$$

where  $\varphi(z) \rightarrow 0$  at small  $z$  for geometries which are asymptotically  $\text{AdS}_5$

- Gravitational potential energy for object of mass  $m$

$$V = mc^2 \sqrt{g_{00}} = mc^2 R \frac{e^{\varphi(z)/2}}{z}$$

- Consider warp factor  $\exp(\pm \kappa^2 z^2)$
- Plus solution:  $V(z)$  increases exponentially confining any object in modified AdS metrics to distances  $\langle z \rangle \sim 1/\kappa$

