Holographic Duality and Dimension Flow

CFT$_d$ Boundary
(Quantum Field Theory)

AdS$_{d+1}$ Bulk
(Quantum Gravity)

IR
$d_{eff} = d$

UV
$d_{eff} = 2$

High

Low

Energy ε

Radial direction z

$d_s^{CFT}(\varepsilon) = d_s^{Bulk}(z)$ where $z \sim 1/\varepsilon$