BMP4 density gradient in disk-shaped confinement BEHNAZ BO-
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— We present a quantitative model that explains the scaling of BMP4 gradients
during gastrulation and the recent experimental observation that geometric confine-
ment of human embryonic stem cells is sufficient to recapitulate much of germ layer
patterning. Based on a assumption that BMP4 diffusion rate is much smaller than
the diffusion rate of its inhibitor molecules, our results confirm that the length-scale
which defines germ layer territories does not depend on system size.

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