Motivated by the question of how inflation started, we propose a Euclidean preparation of an asymptotically AdS2 spacetime that contains an inflating dS2 bubble. The setup can be embedded in a four dimensional theory with a Minkowski vacuum and a false vacuum. AdS2 times 2-sphere approximate the near horizon geometry of a 4d near-extremal RN wormhole. Likewise, in the false vacuum the near-horizon geometry of a near-extremal black hole is approximately dS2 times 2-sphere. We interpret the Euclidean solution as describing the decay of an excitation inside the wormhole to a false vacuum bubble. The result is an inflating region inside a non-traversable asymptotically Minkowski wormhole.

Tuesday, March 30, 2021, 2:30 pm
Zoom link will be distributed to joint cosmology seminar mailing list. If not subscribed see https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar

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