

## On Negative Mass

*Saturday, 1 June 2019 10:00 (15 minutes)*

We review the notion of negative mass in general relativity. We show the existence of stable, thin wall bubbles in a de Sitter background. The outside metric is the exact negative mass Schwarzschild-de Sitter metric, while inside, it is a smooth non-singular metric, with a corresponding energy-momentum tensor that satisfies the dominant energy condition.

**Primary author:** Prof. PARANJAPE, Manu (Université de Montréal)

**Co-authors:** Mr SAVARD, Antoine (Université de Montréal); Prof. JOHNSON, Matthew (Perimeter Institute/York University); Ms TAPIA-ARELLANO, Natalia (Universidad de Santiago)

**Presenter:** Prof. PARANJAPE, Manu (Université de Montréal)

**Session Classification:** Talks