Year: 2012 | **Vol.: 81** | **Fasc.: 1-2**

Title: On the rigidity of spacelike hypersurfaces immersed in the steady state space $\mathcal{H}^{n+1}$

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In this paper, as a suitable application of the well known generalized Maximum Principle of Omori–Yau, we obtain rigidity results concerning to complete spacelike hypersurfaces immersed in the half $\mathcal{H}^{n+1}$ of the de Sitter space $\mathbb{S}_1^{n+1}$, which models the so-called *steady state space*. Moreover, by using an isometrically equivalent model for $\mathcal{H}^{n+1}$, we extend our results to a wider family of spacetimes. Finally, we also study the uniqueness of entire vertical graphs in such ambient spacetimes.

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