1163-57-75

Vladimir Chernov* (vladimir.chernov@dartmouth.edu), 6188 Kemeny Hall, Dartmouth College, Hanover, NH 03755, Gage Martin (martaic@bc.edu), Department of Mathematics, Boston College, Chestnut Hill, MA 02467, and Ina Petkova (ina.petkova@dartmouth.edu), 6188 Kemeny Hall, Dartmouth College, Hanover, NH. Khovanov homology and causality in spacetimes.

We observe that Khovanov homology detects causality in (2+1)-dimensional globally hyperbolic spacetimes whose Cauchy surface is homeomorphic to \mathbb{R}^2 . We use this result to discuss how Khovanov homology can be used to detect causality in globally hyperbolic spacetimes whose Cauchy surface is different fron \mathbb{R}^2 . (Received September 04, 2020)