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# Geometry Topology Quantum Field Theory Cosmology By Joseph Kounieher Cécile Barbachoux Frédéric Hélein

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April 29th, 2020 - The concepts and methods of topology and geometry are an indispensable part of

theoretical physics today They have led to a deeper understanding of many crucial aspects in

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February 29th, 2020 - Following the mathematical classification we describe the different possible muticonnected spaces which may be used to construct universe models We briefly discuss some implications of multi connectedness for quantum cosmology and its consequences concerning quantum field theory in the early universe' **Theoretical Cosmology and Elementary Particle Physics**

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studying the dark energy and dark matter in the Universe building new models of space and time and

predicting the behavior of fundamental particles in models of physics beyond the standard

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May 4th, 2020 - Cosmic Topology is the name given to the study of the overall shape of the universe which involves both global topological features and more local geometrical properties such as curvature Whether space is finite or infinite simply connected or multi connected like a torus smaller or greater than the portion of the universe that we can directly observe are questions that refer to topology'

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BEES BLURRY AT SMALL DISTANCE SCALES THIS HAS RESULTED IN A NUMBER OF

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direct interpretation of quantum theory of the minkowski spacetime

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It As A Simplicial And Local Realisation Of The Idea Of 3rd Quantization Of The Gravitational Field Equivalently Of A Quantum Field Theory Of Simplicial Geometry In Which Also The Topology Of Space Is Fully Dynamical"

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topology of space time Fields are internal characteristics of the space time itself Zeroth fluctuations of

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space time geometry

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