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Sommario/riassunto	"We study continuous processes indexed by a special family of graphs. Processes indexed by vertices of graphs are known as probabilistic graphical models. In 2011, Burdzy and Pal proposed a continuous version of graphical models indexed by graphs with an embedded time structure - so called time-like graphs. We extend the notion of time-like graphs and find properties of processes indexed by them. In particular, we solve the conjecture of uniqueness of the distribution for the process indexed by graphs with infinite number of vertices. We provide a new result showing the stochastic heat equation as a limit of the sequence of natural Brownian motions on time-like graphs. In addition, our treatment of time-like graphical models reveals connections to Markov random fields, martingales indexed by directed sets and branching Markov processes"--