

1. Record Nr.	UNINA9910810637603321
Autore	Tadic Tvrtko
Titolo	Time-like graphical models // Tvrtko Tadic
Pubbl/distr/stampa	Providence, RI : , : American Mathematical Society, , [2019] ©2019
ISBN	1-4704-5416-5
Descrizione fisica	1 online resource (184 pages) : color illustrations
Collana	Memoirs of the American Mathematical Society, , 0065-9266 ; ; September 2019, volume 261, number 1262
Classificazione	60G2060G6060H1560J6560J8062H0505C99
Disciplina	519.2/3
Soggetti	Graphical modeling (Statistics) Mathematical statistics - Graphic methods
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
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"--