1. Record Nr. UNINA9910576874903321

Autore	Alquier Pierre
Titolo	Approximate Bayesian Inference
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
Descrizione fisica	1 electronic resource (508 p.)
Soggetti	Research & information: general Mathematics & science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Extremely popular for statistical inference, Bayesian methods are also becoming popular in machine learning and artificial intelligence problems. Bayesian estimators are often implemented by Monte Carlo methods, such as the Metropolis–Hastings algorithm of the Gibbs sampler. These algorithms target the exact posterior distribution. However, many of the modern models in statistics are simply too complex to use such methodologies. In machine learning, the volume of the data used in practice makes Monte Carlo methods too slow to be useful. On the other hand, these applications often do not require an exact knowledge of the posterior. This has motivated the development of a new generation of algorithms that are fast enough to handle huge datasets but that often target an approximation of the posterior. This book gathers 18 research papers written by Approximate Bayesian Inference specialists and provides an overview of the recent advances in these algorithms. This includes optimization-based methods (such as variational approximations) and simulation-based methods (such as ABC or Monte Carlo algorithms). The theoretical aspects of Approximate Bayesian Inference are covered, specifically the PAC–Bayes bounds and regret analysis. Applications for challenging computational problems in astrophysics, finance, medical data analysis, and computer vision area also presented.

2.

Record Nr.	UNINA9910778222903321
Autore	Kollar Janos
Titolo	Lectures on resolution of singularities [[electronic resource] /] / Janos Kollar
Pubbl/distr/stampa	Princeton, N.J., : Princeton University Press, 2007
ISBN	1-282-15774-4 9786612157745 1-4008-2780-9
Edizione	[Course Book]
Descrizione fisica	1 online resource (215 p.)
Collana	Annals of mathematics studies ; ; 166
Classificazione	SK 240
Disciplina	516.3/5
Soggetti	Singularities (Mathematics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 197-202) and index.
Nota di contenuto	Frontmatter -- Contents -- Introduction -- Chapter 1. Resolution for Curves -- Chapter 2. Resolution for Surfaces -- Chapter 3. Strong Resolution in Characteristic Zero -- Bibliography -- Index
Sommario/riassunto	Resolution of singularities is a powerful and frequently used tool in algebraic geometry. In this book, János Kollár provides a comprehensive treatment of the characteristic 0 case. He describes more than a dozen proofs for curves, many based on the original papers of Newton, Riemann, and Noether. Kollár goes back to the original sources and presents them in a modern context. He addresses three methods for surfaces, and gives a self-contained and entirely elementary proof of a strong and functorial resolution in all dimensions. Based on a series of lectures at Princeton University and written in an informal yet lucid style, this book is aimed at readers who are interested in both the historical roots of the modern methods and in a simple and transparent proof of this important theorem.