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Record Nr.	UNINA9910337632303321
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Titolo	Big Data Privacy Preservation for Cyber-Physical Systems / / by Miao Pan, Jingyi Wang, Sai Mounika Errapotu, Xinyue Zhang, Jiahao Ding, Zhu Han
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-13370-2
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (81 pages)
Collana	SpringerBriefs in Electrical and Computer Engineering, , 2191-8112
Disciplina	005.8 005.7
Soggetti	Wireless communication systems Mobile communication systems Data protection Electrical engineering Wireless and Mobile Communication Security Communications Engineering, Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 Cyber-Physical Systems -- Chapter 2 Preliminaries -- Chapter 3 Spectrum Trading with Secondary Users' Privacy Protection -- Chapter 4 Optimization for Utility Providers with Privacy Preservation of Users' Energy Profile -- Chapter 5 Caching with Users' Differential Privacy Preservation in Information-Centric Networks -- Chapter 6 Clock Auction Inspired Privacy Preservation in Colocation Data Centers.
Sommario/riassunto	This SpringerBrief mainly focuses on effective big data analytics for CPS, and addresses the privacy issues that arise on various CPS applications. The authors develop a series of privacy preserving data analytic and processing methodologies through data driven optimization based on applied cryptographic techniques and differential privacy in this brief. This brief also focuses on effectively integrating the data analysis and data privacy preservation techniques to provide the most desirable solutions for the state-of-the-art CPS

with various application-specific requirements. Cyber-physical systems (CPS) are the "next generation of engineered systems," that integrate computation and networking capabilities to monitor and control entities in the physical world. Multiple domains of CPS typically collect huge amounts of data and rely on it for decision making, where the data may include individual or sensitive information, for e.g., smart metering, intelligent transportation, healthcare, sensor/data aggregation, crowd sensing etc. This brief assists users working in these areas and contributes to the literature by addressing data privacy concerns during collection, computation or big data analysis in these large scale systems. Data breaches result in undesirable loss of privacy for the participants and for the entire system, therefore identifying the vulnerabilities and developing tools to mitigate such concerns is crucial to build high confidence CPS. This Springerbrief targets professors, professionals and research scientists working in Wireless Communications, Networking, Cyber-Physical Systems and Data Science. Undergraduate and graduate-level students interested in Privacy Preservation of state-of-the-art Wireless Networks and Cyber-Physical Systems will use this Springerbrief as a study guide. .