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Nota di contenuto	Introduction -- Security Threats in Network Coding -- Subspace Authentication for Random Linear Network Coding -- Lightweight Encryption for Random Linear Network Coding -- Anonymous Routing for Wireless Network Coding -- Concluding Remarks and Future Directions.
Sommario/riassunto	This book covers a series of security and privacy issues in network coding, and introduces three concrete mechanisms to address them. These mechanisms leverage traditional cryptographic primitives and anonymous protocols, and are redesigned to fit into the new framework of network coding. These three mechanisms are MacSig, a new message authentication method for network-coded systems; P-Coding, a new encryption scheme to secure network-coding-based transmissions; and ANOC, a new anonymous routing protocol that seamlessly integrates anonymous routing with network coding. Along with these three mechanisms, the authors provide a review of network coding's benefits, applications, and security problems. Also included is a detailed overview of security issues in the field, with an explanation of how the security issues differ from those in traditional settings.

While network coding can help improve network performance, the adoption of network coding can be greatly limited unless security and privacy threats are addressed. Designed for researchers and professionals, Security in Network Coding explores major challenges in network coding and offers practical solutions. Advanced-level students studying networking or system security will also find the content valuable.