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Nota di contenuto	From Interval (Set) and Probabilistic Granules to Set-and-Probabilistic Granules of Higher Order .- Artificial Intelligence Perspectives on Granular Computing -- Calculi of Approximation Spaces in Intelligent Systems .- Feature Discovery through Hierarchies of Rough Fuzzy Sets .- Comparative Study of Fuzzy Information Processing in Type-2 Fuzzy Systems .- Type-2 Fuzzy Similarity on Partial Truth and Intuitionistic Reasoning .- Decision-Making with Second Order Information Granules .- On the Usefulness of Fuzzy Rule Based Systems based on Hierarchical Linguistic Fuzzy Partitions .- Fuzzy Information Granulation with Multiple Levels of Granularity -- A Rough Set Approach to Building Association Rules and Its Applications .- Fuzzy Modeling with Grey Prediction for Designing Power System Stabilizers .- A Weighted Fuzzy Time Series Based Neural Network Approach to Option Price Forecasting .- A Rough Set Approach to Human Resource Development in IT Corporations .- Environmental Applications of Granular Computing and Intelligent Systems.
Sommario/riassunto	Information granules are fundamental conceptual entities facilitating perception of complex phenomena and contributing to the

enhancement of human centricity in intelligent systems. The formal frameworks of information granules and information granulation comprise fuzzy sets, interval analysis, probability, rough sets, and shadowed sets, to name only a few representatives. Among current developments of Granular Computing, interesting options concern information granules of higher order and of higher type. The higher order information granularity is concerned with an effective formation of information granules over the space being originally constructed by information granules of lower order. This construct is directly associated with the concept of hierarchy of systems composed of successive processing layers characterized by the increasing levels of abstraction. This idea of layered, hierarchical realization of models of complex systems has gained a significant level of visibility in fuzzy modeling with the well-established concept of hierarchical fuzzy models where one strives to achieve a sound tradeoff between accuracy and a level of detail captured by the model and its level of interpretability. Higher type information granules emerge when the information granules themselves cannot be fully characterized in a purely numerical fashion but instead it becomes convenient to exploit their realization in the form of other types of information granules such as type-2 fuzzy sets, interval-valued fuzzy sets, or probabilistic fuzzy sets. Higher order and higher type of information granules constitute the focus of the studies on Granular Computing presented in this study. The book elaborates on sound methodologies of Granular Computing, algorithmic pursuits and an array of diverse applications and case studies in environmental studies, option price forecasting, and power engineering.
