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	Nota di contenuto	Biomodel Engineering – From Structure to Behavior -- The Attributed Pi-Calculus with Priorities -- A Language for Biochemical Systems: Design and Formal Specification -- Mechanistic Insights into Metabolic Disturbance during Type-2 Diabetes and Obesity Using Qualitative Networks -- Modelling Self-assembly in BlenX -- Rule-Based Modeling of Transcriptional Attenuation at the Tryptophan Operon -- Modelling and Analysis of the NF-?B Pathway in Bio-PEPA.
	Sommario/riassunto	The LNCS journal Transactions on Computational Systems Biology is

devoted to inter- and multidisciplinary research in the fields of computer science and life sciences and supports a paradigmatic shift in the techniques from computer and information science to cope with the new challenges arising from the systems oriented point of view of biological phenomena. This special issue of the journal focuses on the topic of modeling methodologies. It starts with a position paper by the guest editors, entitled Biomodel Engineering - from Structure to Behavior, which is followed by the technical contributions covering a broad range of modeling methodologies. Two papers focus on new modeling languages, and these are followed by an article presenting a case study demonstrating the value of the qualitative network approach. With the remaining three contributions, the special issue leaves the area of qualitative modeling, to move toward quantitative programming with the BlenX language and the application of more theoretical process calculi.