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Titolo	Concise Guide to Fault Tree Analysis : Models, Methods and Algorithms // by Mariëlle Stoelinga, Enno Ruijters, Pavel Král
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Nota di contenuto	1. Introduction -- 2. Fault tree models -- 3. The role of fault tree analysis in reliability engineering -- 4. Mathematical formulation -- 5. Qualitative analysis -- 6. Quantitative analysis -- 7. Extensions -- 8. Conclusions.
Sommario/riassunto	Fault tree analysis is key tool in risk analysis. It is a widely used industry standard with applications in amongst others, the aerospace, automotive, chemical and nuclear industries. Society depends on complex engineering systems such as (nuclear) power plants, airplanes, and data centers, and this dependency is only increasing with developments like smart grids and self-driving cars. In this light, risk analysis is essential to ensure that these systems are reliable. Fault tree analysis is a powerful, commonly used tool for such risk analysis. This

book provides a comprehensive overview of what fault trees are and how they are applied, looking at their role in risk management, illustrating techniques for their construction, and describing their analysis in both practical and mathematical terms. Topics and features:

- Delivers a crystal-clear overview of techniques for building and analyzing fault trees
- Offers numerous illustrative examples of methods and industry applications
- Provides solid mathematical descriptions for exact and approximate analysis
- Includes an overview of modern extensions of fault trees
- Examines and explains the whole fault tree analysis process, including the application of results

With its comprehensive overview of the practice of fault tree analysis, this book is eminently suitable for industrial and academic professionals in risk management. Furthermore, the overview of analysis techniques will be of great interest to researchers working to advance the field. Mariëlle Stoelinga is a full Professor at the University of Twente, The Netherlands. Pavel Král is a product manager and research lead at RiskSpectrum AB. Enno Ruijters is a Software Developer at BetterBe B.V.
