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Autore	Chapuis Bastien
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Sommario/riassunto	This book provides best-practice guidance and practical recommendations on the use of numerical simulation for probability of detection (POD) curve estimation in the study of non-destructive testing reliability. It focuses on ultrasonic testing (UT) weld inspection but many of the principles can be applied to a broader range of techniques and situations. The first part lists and briefly describes the principal documents that establish the recommended statistical framework adapted for POD curve estimation. It also presents the most important initiatives on the model assisted probability of detection (MAPOD) approach in recent years. The second part provides details of the advantages and limitations of the simulation in this context. The third part then describes the prerequisites for the use of simulation (validation of the software, expertise of the user), and the fourth and main part offers the methodology and guidance as well as possible applications for using POD curves determined using simulation.

