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Nota di contenuto	Intro -- Preface -- Contents -- High Sensitivity Rotating Alternating Current Field Measurement for Arbitrary-Angle Underwater Cracks -- 1 Introduction -- 2 Induced Rotating Alternating Current Field -- 2.1 RACFM Theoretical Model -- 2.2 FEM Modeling and Analyzing -- 3 RACFM System for Arbitrary-Angle Cracks Measurement -- 3.1 RACFM System -- 3.2 RACFM Probe -- 3.3 RACFM Waterproof Shell -- 4 RACFM System Testing and Discussing -- 4.1 Experiment System -- 4.2 Discussion -- 5 Conclusion -- References -- Detection of Cracks in Metallic Objects by Arbitrary Scanning Direction Using a Double U-Shaped Orthogonal ACFM Probe -- 1 Introduction -- 2 FEM Model of Double U-Shaped Orthogonal ACFM Probe -- 3 Cracks Detection Experiments -- 4 Conclusion -- References -- A Novel Fatigue Crack Angle Quantitative Monitoring Method Based on Rotating Alternating Current Field Measurement -- 1 Introduction -- 2 Theoretical Model -- 3 Finite Element Analysis -- 3.1 Model Set Up -- 3.2 Characteristic

Signal Analysis of Cracks with Different Angles -- 3.3 Characteristic
Signal Analysis of Cracks with Different Lengths and Depths -- 4
Experimental Setup and Result -- 4.1 Probe and System Setup -- 4.2
Crack Length Monitoring -- 4.3 Crack Depth Monitoring -- 4.4
Modification of the Measured Angle of the Crack -- 5 Conclusions
and Further Work -- References -- Inspection of Both Inner and Outer
Cracks in Aluminum Tubes Using Double Frequency Circumferential
Current Field Testing Method -- 1 Introduction -- 2 Finite Element
Method Model -- 2.1 Simulation Model -- 2.2 High Frequency
Excitation Signal -- 2.3 Low Frequency Excitation Signal -- 3 Testing
System -- 3.1 Probe with Sensor Arrays -- 3.2 Testing System -- 4
Inspection of Inner and Outer Cracks -- 4.1 Specimen -- 4.2 Inspection
of Different Depth Cracks -- 4.3 Inspection of Different Length Cracks.
5 Conclusions and Further Work -- References -- Novel Phase Reversal
Feature for Inspection of Cracks Using Multi-frequency Alternating
Current Field Measurement Technique -- 1 Introduction -- 2
Methodology -- 3 Multi-frequency ACFM Testing System -- 4
Experiment -- 5 Conclusion -- References -- Visual Reconstruction
of Irregular Crack in Austenitic Stainless Steel Based on ACFM
Technique -- 1 Introduction -- 2 An Irregular Crack Simulation Model
-- 2.1 Simulation Model -- 2.2 Simulation Analysis of Electromagnetic
Field -- 3 Visualization Reconstruction Method -- 3.1 Gradient Field
Algorithm -- 3.2 Simulation Results Visualization Refactoring -- 4
Experimental Verification -- 4.1 Test System Construction -- 4.2
Experimental Test -- 4.3 Reconstruction Accuracy Evaluation -- 5
Conclusions -- References -- Visual ACFM System Modeling
and Optimization for Accurate Measurement of Underwater Cracks -- 1
Introduction -- 2 Underwater VACFM -- 3 Analysis and Optimization
for Probe Parameters -- 3.1 Model Development in ANSYS -- 3.2
Excitation Currents -- 3.3 Fix Structure Lift-Off -- 3.4 Probe Structure
-- 4 System Performance Testing -- 4.1 Experimental System -- 4.2
Accurate Measurements -- 4.3 Results and Discussion -- 5 Design
Summary and Conclusion -- References -- Research on High-Precision
Evaluation of Crack Dimensions and Profiles Methods for Underwater
Structure Based on ACFM Technique -- 1 Introduction -- 2 Marine
Environment ACFM Simulation Model -- 3 Two-Step Interpolation
Algorithm -- 4 Establishment of the Experimental System -- 5 Crack
Evaluation Test -- 5.1 Crack Size Evaluation -- 5.2 Crack Profile
Evaluation -- 6 Conclusion -- References.

Sommario/riassunto

This open access book can be divided into three parts. In part 1, three articles are employed to introduce the RACFM technology. In part 2, two articles are introduced to explain the Multifrequency ACFM. In part 3, three articles are introduced to explain the visualization research in ACFM. With the development of ACFM detection technology, traditional single excitation frequency and single direction excitation structures cannot meet the requirements of multiple types of defect detection (such as cracks at different angles, and buried defects). New types of excitation structures and methods have been proposed, mainly including rotating electromagnetic field detection, multi-frequency detection, and defects visual algorithm. The changes in the excitation structure and signal mentioned above have expanded the scope of application of ACFM detection and provided opportunities for the cross-integration and innovation of ACFM detection technology with other advanced detection methods. This book mainly focuses on the study of the rotating alternating current field measurement (RACFM), the multifrequency ACFM, and the visualization method in ACFM.
