

ISO 11843-7:2025-04 (E)

Capability of detection - Part 7: Methodology based on stochastic properties of instrumental noise

Contents

Page

Foreword.....iv

Introductionv

1 Scope.....1

2 Normative references.....1

3 Terms and definitions.....1

4 Symbols and abbreviations.....3

5 Quantitative analysis and background noise.....4

5.1 Error sources of analysis.....4

5.2 Random processes in background.....4

6 Theories for precision.....5

6.1 Precision for intensity differences.....5

6.2 Precision for area measurements.....6

7 Estimation of noise parameters.....8

7.1 Fourier transform.....8

7.2 Auto-covariance function.....9

7.3 Difference method.....10

8 Procedures for estimation of SD.....11

Annex A (informative) Derivation of [Formula \(7\)](#).....13

Annex B (informative) Derivation of [Formula \(11\)](#).....14

Bibliography.....16