

# ISO 11843-7:2012-06 (E)

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

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Quantitative analysis and background noise .....	2
4.1	Error sources of analysis .....	2
4.2	Random processes in background .....	3
5	Theories for precision .....	3
5.1	Theory based on auto-covariance function .....	3
5.2	Theory based on power spectrum .....	5
6	Practical use of FUMI theory .....	9
6.1	Estimation of noise parameters .....	9
6.2	Procedures for estimation of SD .....	10
Annex B (informative) Derivation of Formula (7) .....		14
Annex C (informative) Derivation of Formulae (14) to (16) .....		15
Bibliography .....		17