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Nota di contenuto	Introduction and Motivation -- Theory and Background -- Noise-Robustness of Kochen-Specker Tests -- Statistical Models for Noisy Measurements -- Non contextual Evolution -- Conclusion -- Appendix.
Sommario/riassunto	Jochen Szangolies contributes a novel way of dealing with the problem of the experimental testability of the Kochen-Specker theorem posed by realistic, that is, noisy, measurements. Such noise spoils perfect compatibility between successive measurements, which however is a necessary requirement to test the notion of contextuality in usual approaches. To overcome this difficulty, a new, extended notion of contextuality that reduces to Kochen-Specker contextuality in the limit of perfect measurement implementations is proposed by the author, together with a scheme to test this notion experimentally. Furthermore, the behaviour of these tests under realistic noise conditions is investigated. Contents Theoretical Background of the Kochen-Specker Theorem Noise-Robustness of Kochen-Specker Tests Statistical Models for Noisy Measurements Noncontextual Evolution Target Groups Researchers and students in physics with an interest in foundational

issues in Quantum Mechanics and the Kochen-Specker Theorem specifically Experimentalists with an interest in testing the implications of the Kochen-Specker Theorem About the Author Jochen Szangolies obtained his diploma in physics at the University of Siegen, studying the problem of the experimental verification of quantum contextuality under Prof. Otfried Gühne. Currently, he investigates methods of entanglement detection under the tutelage of Prof. Dagmar Bruß at the Heinrich-Heine University Düsseldorf.

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