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Autore	Gurski Nick <1980->
Titolo	Coherence in three-dimensional category theory // Nick Gurski, University of Sheffield [[electronic resource]]
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Descrizione fisica	1 online resource (vii, 278 pages) : digital, PDF file(s)
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Background: Bicategorical background ; Coherence for bicategories ; Gray-categories -- Tricategories: The algebraic definition of tricategory ; Examples ; Free constructions ; Basic structure ; Gray-categories and tricategories ; Coherence via Yoneda ; Coherence via free constructions -- Gray-monads: Codescent in Gray-categories ; Codescent as a weighted colimit ; Gray-monads and their algebras ; The reflection of lax algebras into strict algebras ; A general coherence result.
Sommario/riassunto	Dimension three is an important test-bed for hypotheses in higher category theory and occupies something of a unique position in the categorical landscape. At the heart of matters is the coherence theorem, of which this book provides a definitive treatment, as well as covering related results. Along the way the author treats such material as the Gray tensor product and gives a construction of the fundamental 3-groupoid of a space. The book serves as a comprehensive introduction, covering essential material for any student of coherence

and assuming only a basic understanding of higher category theory. It is also a reference point for many key concepts in the field and therefore a vital resource for researchers wishing to apply higher categories or coherence results in fields such as algebraic topology or theoretical computer science.
