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Titolo	Isogeometric analysis: a new paradigm in the numerical approximation of PDEs [e-book]: Cetraro, Italy 2012 / edited by Annalisa Buffa, Giancarlo Sangalli
Pubbl/distr/stampa	Cham : Springer International Publishing, 2016
ISBN	9783319423081
Descrizione fisica	1 online resource (ix, 193 p. 81 ill., 70 ill. in color)
Collana	Lecture Notes in Mathematics, 0075-8434 ; 2161
Classificazione	AMS 65-06 LC QA297-299.4
Altri autori (Persone)	Buffa, Annalisa Sangalli, Giancarlo
Disciplina	518
Soggetti	Numerical analysis Computer graphics Computer mathematics
Lingua di pubblicazione	Inglese
Formato	Software
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Nota di contenuto	Preface; Standard and NonStandard CAGD Tool for Isogeometric Analysis: a Tutorial; Models for Isogeometric Analysis from CAD; An Introduction to the Numerical Analysis of Isogeometric Methods; Isogeometric Compatible Discretizations for Viscous Incompressible Flow
Sommario/riassunto	Providing an introduction to isogeometric methods with a focus on their mathematical foundations, this book is composed of four chapters, each devoted to a topic of special interests for isogeometric methods and their theoretical understanding. It contains a tutorial on splines and generalizations that are used in CAD parametrizations, and gives an overview of geometric modeling techniques that can be used within the isogeometric approach, with a focus on non-tensor product splines. Finally, it presents the mathematical properties of isogeometric spaces and spline spaces for vector field approximations, and treats in detail an application of fundamental importance: the isogeometric simulation of a viscous incompressible flow

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