1.	Record Nr. Autore Titolo	UNINA9910154932403321 Balbaert Ivo Julia : high performance programming : leverage the power of Julia to design and develop high performing programs : a course in three modules / / Ivo Balbaert, Avik Sengupta, Malcolm Sherrington
	Pubbl/distr/stampa	Birmingham, England ; ; Mumbai, [India] : , : Packt, , 2016 ©2016
	ISBN	1-78712-610-2
	Edizione	[1st edition]
	Descrizione fisica	1 online resource (697 pages) : illustrations
	Disciplina	005.13
	Soggetti	Programming languages (Electronic computers) Julia (Computer program language) Computer programming
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references.
	Sommario/riassunto	Leverage the power of Julia to design and develop high performing programs About This Book Get to know the best techniques to create blazingly fast programs with Julia Stand out from the crowd by developing code that runs faster than your peers' code Complete an extensive data science project through the entire cycle from ETL to analytics and data visualization Who This Book Is For This learning path is for data scientists and for all those who work in technical and scientific computation projects. It will be great for Julia developers who are interested in high-performance technical computing. This learning path assumes that you already have some basic working knowledge of Julia's syntax and high-level dynamic languages such as MATLAB, R, Python, or Ruby. What You Will Learn Set up your Julia environment to achieve the highest productivity Solve your tasks in a high-level dynamic language and use types for your data only when needed Apply Julia to tackle problems concurrently and in a distributed environment Get a sense of the possibilities and limitations of Julia's performance Use Julia arrays to write high performance code Build a data science project through the entire cycle of ETL, analytics, and data visualization

Display graphics and visualizations to carry out modeling and simulation in Julia Develop your own packages and contribute to the Julia Community In Detail In this learning path, you will learn to use an interesting and dynamic programming language - Julia! You will get a chance to tackle your numerical and data problems with Julia. You'll begin the journey by setting up a running Julia platform before exploring its various built-in types. We'll then move on to the various functions and constructs in Julia. We'll walk through the two important collection types - arrays and matrices in Julia. You will dive into how Julia uses type information to achieve its performance goals, and how to use multiple dispatch to help the compiler emit high performance machine code. You will see how Julia's design makes code fast, and you'll see its distributed computing capabilities. By the end of this learning path, you will see how data works using simple statistics and analytics, and you'll discover its high and dynamic performance - its real strength, which makes it particularly useful in highly intensive computing tasks. This learning path combines some of the best that Packt has to offer in one complete, curated package. It includes conten...