

1. Record Nr.	UNINA9910453596003321
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Titolo	Groups, graphs, and trees : an introduction to the geometry of infinite groups // John Meier [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2008
ISBN	1-107-20152-7 1-281-79121-0 9786611791216 1-139-16750-2 0-511-42394-2 0-511-42442-6 0-511-42279-2 0-511-42213-X 0-511-42345-4
Descrizione fisica	1 online resource (xi, 231 pages) : digital, PDF file(s)
Collana	London Mathematical Society student texts ; ; 73
Disciplina	512/.2
Soggetti	Infinite groups
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Cayley's theorems -- Groups generated by reflections -- Groups acting on trees -- Baumslag-Solitar groups -- Words and Dehn's word problem -- A finitely-generated, infinite, Torsion group -- Regular languages and normal forms -- The Lamplighter group -- The geometry of infinite groups -- Thompson's group -- The large-scale geometry of groups.
Sommario/riassunto	Presenting groups in a formal, abstract algebraic manner is both useful and powerful, yet it avoids a fascinating geometric perspective on group theory - which is also useful and powerful, particularly in the study of infinite groups. This book presents the modern, geometric approach to group theory, in an accessible and engaging approach to the subject. Topics include group actions, the construction of Cayley graphs, and connections to formal language theory and geometry. Theorems are balanced by specific examples such as Baumslag-Solitar

groups, the Lamplighter group and Thompson's group. Only exposure to undergraduate-level abstract algebra is presumed, and from that base the core techniques and theorems are developed and recent research is explored. Exercises and figures throughout the text encourage the development of geometric intuition. Ideal for advanced undergraduates looking to deepen their understanding of groups, this book will also be of interest to graduate students and researchers as a gentle introduction to geometric group theory.
