
Birkhäuser

 1st
edition

2001, XIII, 233 p.

Printed book

Hardcover

Printed book

Hardcover

ISBN 978-0-8176-4120-7

\$ 99,00

Out of stock

Discount group

Professional Books (2)

Product category

Monograph

Series

Progress in Mathematics

Other renditions

Softcover

ISBN 978-1-4612-7413-1

Softcover

ISBN 978-1-4612-2099-2

Mathematics : Geometry

Bass, Hyman, Lubotzky, Alexander

Tree Lattices

[UPDATED 6/6/2000] Group actions on trees furnish a unified geometric way of recasting the chapter of combinatorial group theory dealing with free groups, amalgams, and HNN extensions. Some of the principal examples arise from rank one simple Lie groups over a non-archimedean local field acting on their Bruhat-Tits trees. In particular this leads to a powerful method for studying lattices in such Lie groups. This monograph extends this approach to the more general investigation of Γ -lattices Γ , where Γ is a locally finite tree and Γ is a discrete group of automorphisms of Γ of finite covolume. These "tree lattices" are the main object of study. Special attention is given to both parallels and contrasts with the case of Lie groups. Beyond the Lie group connection, the theory has applications to combinatorics and number theory. The authors present a coherent survey of the results on uniform tree lattices, and a (previously unpublished) development of the theory of non-uniform tree lattices, including some fundamental and recently proved existence theorems. Non-uniform tree lattices are much more complicated than uniform ones; thus a good deal of attention is given to the construction and study of diverse examples. Some interesting new phenomena are observed here which cannot occur in the case of Lie groups. The fundamental technique is the encoding of tree actions in terms of the corresponding quotient "graph of groups." {it Tree Lattices} should be a helpful resource to researchers in the field, and may also be used for a graduate course in geometric group theory.

Order online at springer.com/booksellers

Springer Nature Customer Service Center LLC

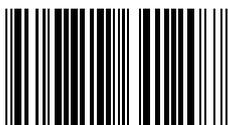
233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

customerservice@springernature.com


ISBN 978-0-8176-4120-7 / BIC: PBM / SPRINGER NATURE: SCM21006

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.