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    Nota di bibliografia Includes bibliographical references and index.

    Nota di contenuto   Classical Lie algebras and Weyl groups -- Heaps over graphs -- Weyl
                         group actions -- Lie theory -- Minuscule representations -- Full heaps
                         over affine Dynkin diagrams -- Chevalley bases -- Combinatorics of
                         Weyl groups -- The 28 bitangents -- Exceptional structures.

    Sommario/riassunto   Minuscule representations occur in a variety of contexts in mathematics
                         and physics. They are typically much easier to understand than
                         representations in general, which means they give rise to relatively easy
                         constructions of algebraic objects such as Lie algebras and Weyl
                         groups. This book describes a combinatorial approach to minuscule
                         representations of Lie algebras using the theory of heaps, which for
                         most practical purposes can be thought of as certain labelled partially
                         ordered sets. This leads to uniform constructions of (most) simple Lie
                         algebras over the complex numbers and their associated Weyl groups,

and provides a common framework for various applications. The topics studied include Chevalley bases, permutation groups, weight polytopes and finite geometries. Ideal as a reference, this book is also suitable for students with a background in linear and abstract algebra and topology. Each chapter concludes with historical notes, references to the literature and suggestions for further reading.