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Edizione	[1st ed.]
Descrizione fisica	1 online resource (x, 302 pages) : digital, PDF file(s)
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Soggetti	Lie groups Lie algebras
Lingua di pubblicazione	Inglese
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Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 299-300) and index.
Nota di contenuto	The linear group -- The exponential map -- Linear Lie groups -- Lie algebras -- Haar measure -- Representations of compact groups -- The groups SU(2) and SO(3), Haar measure -- Analysis on the group SU(2) -- Analysis on the sphere and the Euclidean space -- Analysis on the spaces of symmetric and Hermitian matrices -- Irreducible

representations of the unitary group -- Analysis on the unitary group.

Sommario/riassunto

The subject of analysis on Lie groups comprises an eclectic group of topics which can be treated from many different perspectives. This self-contained text concentrates on the perspective of analysis, to the topics and methods of non-commutative harmonic analysis, assuming only elementary knowledge of linear algebra and basic differential calculus. The author avoids unessential technical discussions and instead describes in detail many interesting examples, including formulae which have not previously appeared in book form. Topics covered include the Haar measure and invariant integration, spherical harmonics, Fourier analysis and the heat equation, Poisson kernel, the Laplace equation and harmonic functions. Perfect for advanced undergraduates and graduates in geometric analysis, harmonic analysis and representation theory, the tools developed will also be useful for specialists in stochastic calculation and the statisticians. With numerous exercises and worked examples, the text is ideal for a graduate course on analysis on Lie groups.
