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Nota di contenuto Introduction -- Preliminaries -- Review of Algebraic groups over

arbitrary fields -- Representations of phi1 and the Moduli space -- p-adic norm on a vector space and Bruhat-Tits buildings -- Harmonic metric on flat vector bundle -- Pluriharmonic map of finite energy -- Pluriharmonic maps of possibly infinite energy but with controlled growth at infinity -- Non-abelian Hodge theory, factorization theorems for non rigid or p-adic unbound representations -- Higgs bundles for archimedean representations and equivariant holomorphic 1-forms for p-adic representations -- Albanese maps and a Lefschetz type theorem for holomorphic 1-forms -- Factorizations for nonrigid representations into almost simple complex algebraic groups -- Factorization for p-adic unbounded representations into almost simple p-adic algebraic groups -- Simpson's construction of families on non rigid

representations -- Shavarevich maps for representations of phi1, Kodaira dimension and Chern-hyperbolicity of Shavarevich varieties...

Sommario/riassunto

Using harmonic maps, non-linear PDE and techniques from algebraic geometry this book enables the reader to study the relation between

geometry this book enables the reader to study the relation between fundamental groups and algebraic geometry invariants of algebraic varieties. The reader should have a basic knowledge of algebraic geometry and non-linear analysis. This book can form the basis for graduate level seminars in the area of topology of algebraic varieties. It also contains present new techniques for researchers working in this