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Nota di contenuto	Preface A. Bahri and Y. Xu; Contents; 1. Sign-Changing Yamabe-Type Problems; 1.1 General Introduction; 1.2 Results and Conditions; 1.3 Conjecture 2 and Sketch of the Proof of Theorem 1; Outline; 1.4 The Difference of Topology; 1.5 Open Problems; 1.6 Preliminary Estimates and Expansions, the Principal Terms; 1.7 Preliminary Estimates; 1.8 Proof of the Morse Lemma at Infinity When the Concentrations are Comparable; 1.9 Redirecting the Estimates, Estimates on - vi-H1; Bibliography; 2. Contact Form Geometry; 2.1 General Introduction 2.2 On the Dynamics of a Contact Structure along a Vector Field of its Kernel2.3 Appendix 1; 2.4 The Normal Form of $(a, v)$ Near an Attractive Periodic Orbit of $v$ ; 2.5 Compactness; 2.6 Transmutations; 2.7 On the Morse Index of a Functional Arising in Contact Form Geometry; 2.8 Calculation of $\partial^2 J(x)$ ; 2.9 Calculation of $\partial^2 J(x)$ ; 2.10 Other Second Order Derivatives; 2.11 Appendix; Bibliography
Sommario/riassunto	This book presents a new front of research in conformal geometry, on sign-changing Yamabe-type problems and contact form geometry in particular. New ground is broken with the establishment of a Morse lemma at infinity for sign-changing Yamabe-type problems. This family of problems, thought to be out of reach a few years ago, becomes a family of problems which can be studied: the book lays the foundation

for a program of research in this direction. In contact form geometry, a cousin of symplectic geometry, the authors prove a fundamental result of compactness in a variational problem on Legendre

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