1. Record Nr. UNINA9910793296303321

Autore	Lin Francesco <1988->
Titolo	A Morse-Bott approach to monopole Floer homology and the triangulation conjecture / / Francesco Lin
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , [2018] ©2018
ISBN	1-4704-4819-X
Descrizione fisica	1 online resource (174 pages)
Collana	Memoirs of the American Mathematical Society ; ; Volume 255, Number 1221
Disciplina	526.32
Soggetti	Triangulation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Cover -- Title page -- Chapter 1. Introduction -- Chapter 2. Basic setup -- 2.1. The monopole equations -- 2.2. Blowing up the configuration spaces -- 2.3. Completion and slices -- 2.4. Perturbations -- Chapter 3. The analysis of Morse-Bott singularities -- 3.1. Hessians and Morse-Bott singularities -- 3.2. Moduli spaces of trajectories -- 3.3. Transversality -- 3.4. Compactness and finiteness -- 3.5. Gluing -- 3.6. The moduli space on a cobordism -- Chapter 4. Floer homology for Morse-Bott singularities -- 4.1. Homology of smooth manifolds via stratified spaces -- 4.2. Floer homology -- 4.3. Invariance and functoriality -- Chapter 5. \Pin-monopole Floer homology -- 5.1. An involution in the theory -- 5.2. Equivariant perturbations and Morse-Bott transversality -- 5.3. Invariant chains and Floer homology -- 5.4. Some computations -- 5.5. Manolescu's invariant and the Triangulation conjecture -- Bibliography -- Back Cover.
Sommario/riassunto	In the present work the author generalizes the construction of monopole Floer homology due to Kronheimer and Mrowka to the case of a gradient flow with Morse-Bott singularities. Focusing then on the special case of a three-manifold equipped equipped with a {\rm spin}^c structure which is isomorphic to its conjugate, the author defines the counterpart in this context of Manolescu's recent Pin(2)-equivariant Seiberg-Witten-Floer homology. In particular, the author provides an

alternative approach to his disproof of the celebrated Triangulation conjecture.