ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

6. Topology

1991 MS Classification: 57, 58

Prishlyak, Alexander O., Kiev University, Ukraine

Morse function conjugation on 4-manifolds

We consider Morse function on 4-manifolds with one minimum, one maximum and without critical 3-points. For such function one can build associated handlebodies decomposition and Kirby diagram. For each attaching circles of a 2-handle and for each dotted circle we ascribe the natural number, which is equal to ordered number (by increasing value) of the corresponding Morse function critical point. We call such diagrams ordered. The criteria of Morse functions conjugations in terms of ordered Kirby diagrams will be presented.
The conjugations of Morse functions on 2- and 3-manifolds will be also discussed.