

Stabilizations and operations of Heegaard splittings

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Kneser and Milnor proved that each compact 3-manifold is the connected sum of n irreducible manifolds and these factors are unique upto homeomorphism. Haken and Kneser proved that each compact 3-manifold is the amalgamation of small 3-manifolds. By Dehn's lemma, each compact 3-manifold is obtained by doing boundary connected sums and self-boundary connected sums from boundary irreducible 3-manifolds. According to these operations of 3-manifolds, there are similar operations of Heegaard splittings. In this talk, I shall introduce some results on stabilizations and operations of Heegaard splittings.

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