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ENUMERATION OF COVERINGS, MAPS AND HYPERMAPS

In this lecture we present a new method to count finite sheeted coverings of manifolds with a finitely generated fundamental group. The details can be found in [1] and [2]. We apply it to count branched and unbranched coverings over compact surfaces ([2], [3]). As a consequence, we suggest a new approach to count maps on surfaces up to orientation preserving homeomorphism. The further development of the method gives us a possibility to count sensed maps and hypermaps by number of edges on a closed orientable surface ([3], [4]).

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