

早大理工トポロジーセミナーのお知らせ

Volume conjecture of knotted graph

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Abstract

Volume conjecture suggests that certain limit of colored Jones polynomial of a link determines the hyperbolic volume of the link complement. On the other hand, there is a natural generalization of the colored Jones polynomial to knotted trivalent graph proposed by Kirillov, Reshetikhin and Turaev. We use their generalization to define an invariant of general knotted graph and propose generalized volume conjecture of knotted graph.

To justify this conjecture, we define a potential function from the invariant and show that it determines the hyperbolic structure of certain orbifold obtained by the graph complement. Furthermore, the function determines the hyperbolic volume. These results imply that the conjecture is true in optimistic sense.

This is joint-work with Roland van der Veen of University of Amsterdam.

西早稲田キャンパスへのアクセス, 51号館の位置は

<http://www.sci.waseda.ac.jp/campus>

を参照してください.

皆様のお越しをお待ちしております.

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