早大理工トポロジーセミナーのお知らせ

Some conjectures about the colored Jones polynomial

Anh Tran

（The University of Texas at Dallas）

日時： ２０１７年 ６月２３日（金） ~~１６：３０~~ 〜
June 23 (Friday) **１７：００**

場所： 早稲田大学 西早稲田キャンパス

　　　６３号館 ４階 ４２２室（いつもと違う建物です）

Waseda University, Nishiwaseda Campus,
63st building, 4th floor, Room 422

Abstract

We will discuss some old and new conjectures about the colored Jones polynomial. These include the volume conjecture, AJ conjecture, slope conjecture, and strong slope conjecture. The volume conjecture of Kashaev-Murakami-Murakami relates the colored Jones polynomial of a knot and the hyperbolic volume of the knot complement in S^3. The AJ conjecture of Garoufalidis relates the A-polynomial and the colored Jones polynomial of a knot. The A-polynomial was introduced by Cooper et al. in 1994 and has been fundamental in geometric topology. A similar conjecture to the AJ conjecture was also proposed by Gukov from the viewpoint of the Chern-Simons theory. The slope conjecture of Garoufalidis and the strong slope conjecture of Kalfagianni-Tran assert that certain boundary slopes and Euler characteristics of essential surfaces in a knot complement can be read off from the degree of the colored Jones polynomial.

西早稲田キャンパスへのアクセス，５１号館の位置は

　　https://www.waseda.jp/fsci/access/

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．

世話人： 村上　順　（早稲田大学基幹理工学部数学科）

e-mail: murakami@waseda.jp