Abstract

The class of residually finite rationally solvable (RFRS) groups, introduced by Ian Agol , played a key role in his solution to the virtual Haken conjecture. Besides subgroups of right angled Artin groups, there are not many examples of groups that are RFRS. Agol asked in his 2014 ICM address whether braid groups are RFRS. We show discuss basic properties of RFRS groups then indicate that braid groups are not RFRS in general. We further explain ideas to show that pure braid groups are always RFRS. This is a joint work with Shengkui Ye.