

The action of the Grothendieck-Teichmüller group on the tower of profinite completions of braid groups

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Abstract

We present in this talk a result of Leila Schneps and Pierre Lochak who showed that the Grothendieck-Teichmüller group \widehat{GT} defined by Drinfeld is isomorphic to the automorphism group of the tower of profinite completions of braid groups, equipped with certain natural inclusions and strand-doubling homomorphisms. We recall the definitions and main properties of Artin braid groups, give a short survey about \widehat{GT} and sketch the proof of the main theorem.