九大代数学セミナー

日時 2024 年 1 月 26 日 (金) 16:00-17:00

場所 九州大学伊都キャンパス ウエスト 1 号館 5 階 C-513 中講義室,
　　 および Zoom ミーティングによるオンライン開催

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講演者 片田 舞 氏 (九州大学)

題目 **"Stable rational cohomology of the IA-automorphism groups of free groups"**

概要 The IA-automorphism group IA_n of the free group F_n is a normal subgroup of the automorphism group of F_n. Little is known about the $\mathrm{GL}(n, \mathbb{Z})$-representation structure of the rational cohomology of IA_n except for the first and second cohomology. We study the image of the homomorphism between cohomology induced by the abelianization map of IA_n, which we call the Albanese cohomology of IA_n. In this talk, we obtain a subquotient representation of the Albanese cohomology of IA_n in a stable range, which is conjecturally equal to the entire Albanese cohomology of IA_n. Moreover, we study the whole structure of the stable rational cohomology of IA_n. This talk is partly based on joint work with Kazuo Habiro.

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