TOPOLOGY SEMINAR

"A1 homotopy groups of GL_n and a problem of Suslin's"

By

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Abstract: Let F be an infinite field. Andrei Suslin constructed a morphism from the (Quillen) K-theory of F to the Milnor K-theory of F: $s_n : K_n(F) \to K_n^M(F)$. He proved that the image of s_n contains $(n-1)! K_n^M(F)$. He raised the question of whether this accounted for the whole image—it was known to when n is 1, 2 or 3. In this talk I will explain how one can partially recover this morphism as a morphism of A^1-homotopy groups of down-to-earth objects, and I will show how this tells us some things about Suslin's question when n is 4 and settles it when n is 5. This talk represents joint work with Aravind Asok and Jean Fasel.

Date: 7 December 2020
Time: 18:40
Place: Zoom
To request the event link, please send a message to cihan.okay@bilkent.edu.tr