

Seminario de Geometría y Topología



Grothendieck dessins d'enfants on reducible curves: why and how ?

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Resumen:

Grothendieck dessins d'enfants are connected embedded graphs of certain special structure on smooth oriented compact surfaces without boundary. They are naturally connected with so-called Belyi pairs, i.e., non-constant meromorphic functions with at most 3 critical values defined on algebraic curves. In the talk we plan to provide some introduction to this theory containing recent results and main working directions of our seminar "Graphs on surfaces and curves over number fields" in Moscow State University. In particular, we introduce Generalized Grothendieck dessins d'enfants, which are (not necessary connected) embedded graphs on not necessary smooth surfaces. Generalized Grothendieck dessins correspond to Belyi functions on reducible algebraic curves. We will discuss the algebraic relations between dessins d'enfants and generalized dessins d'enfants. Namely, the last ones can be obtained as solutions of algebraic equations determining the first ones. Also we will discuss the relations of generalized dessins d'enfants with the compactification of the moduli space of complex algebraic curves with marked and numbered points.

The talk is based on joint results with Natalia Amburg and George Shabat.

Lugar: Universidad Complutense de Madrid
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