

Number Theory Seminar

Euclidean Ideal Classes

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Abstract: In the 1970's, Lenstra generalized the notion of a Euclidean ring to that of a ring with a Euclidean ideal. In the context of Dedekind domains, the consequence of the existence of such an ideal is the cyclicity of the class group in much the same way that the consequence of the existence of a Euclidean algorithm is the triviality of the class group. In this talk, I'll discuss Lenstra's notion in light of some recent developments of Hester Graves. In particular, I'll discuss a joint result with Graves classifying the quadratic imaginary fields (which play a rather exception role in the theory) that have a Euclidean ideal.

Wednesday, November 4 at 3:30 PM in SEO 427