Boğaziçi
MATH GRAD SEMINAR

On the Intersection Rings of Orientable 3-Manifolds

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Abstract:

If M is a compact oriented 3-manifold, we have the algebraic invariant $\mu_M\colon \bigwedge_3 H_2(M,\mathbb{Z}) \to \mathbb{Z}$, taking 3 oriented surfaces and counting their algebraic number of intersection points. For a given free abelian group H and 3-form μ we will construct an oriented 3-manifold M such that $\mu_M = \mu$ and $H = H_2(M,\mathbb{Z})$.

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