Michigan Math Club Thursday at 4pm in the Nesbitt Room Free Pizza and Pop

Lost theorems of geometry

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In Euclidean geometry, we learn that a map between two Euclidean planes is linear if it preserves the additive structure of the plane and if it respects scalar multiplication. Originally, linear (and more generally, affine) maps between planes were defined as those which send lines to lines. In my talk, I'll explain the equivalence of these notions, as well as how the equivalence of algebraic and geometric definitions of linear maps generalizes to hyperbolic and spherical geometry.



