

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, September 27
3:00 – 4:00 PM
Maria Sanford, Room 101

SOME REMARKABLE THEOREMS FROM ORDERED GEOMETRIES

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Abstract: By theorem of ordered geometry we understand a theorem that can be proven using only axioms of incidence and axioms of order with Pasch's axiom playing an essential role. In this talk we first discuss the axioms of incidence in a way that covers spaces of an arbitrary dimension d . Then we discuss the relevance of Pasch's axiom, introduce the concept of convexity and outline proofs of several theorems of ordered geometry including Rado's theorem, Helly's theorem, the centerpoint theorem, and the Sylvester – Gallais theorem.

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