Some local properties of Schubert varieties

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Nineteenth century geometers were interested in problems such as counting the number of lines which met four specified lines in space. Schubert varieties are geometric objects devised to help answer such questions. I will discuss some geometric properties and questions about which Schubert varieties satisfy these properties.

Algebra enters the picture in two important ways. First, because Schubert varieties can be defined by polynomial equations, these geometric properties can be formulated as properties of finitely generated commutative rings. Secondly, many answers to such questions are in terms of the combinatorics of the symmetric group or other Coxeter groups.

Time: Thursday, 11/08/2012, 1:30-2:20pm
Location: B101
Refreshments: at 1:00pm in MG 226