
Staircase diagrams and the enumeration of smooth Schubert varieties

Edward Richmond^{*1,2} and William Slofstra^{*3}

¹Department of Mathematics, Oklahoma State University, Stillwater, OK – United States

²Oklahoma State University [Stillwater] – Stillwater, OK 74078, United States

³Institute for Quantum Computing [Waterloo] (IQC) – University of Waterloo 200 University Ave.
West Waterloo, Ontario, Canada N2L 3G1, Canada

Abstract

In this extended abstract, we give a complete description and enumeration of smooth and rationally smooth Schubert varieties in finite type. In particular, we show that rationally smooth Schubert varieties are in bijection with a new combinatorial data structure called staircase diagrams.

*Speaker