

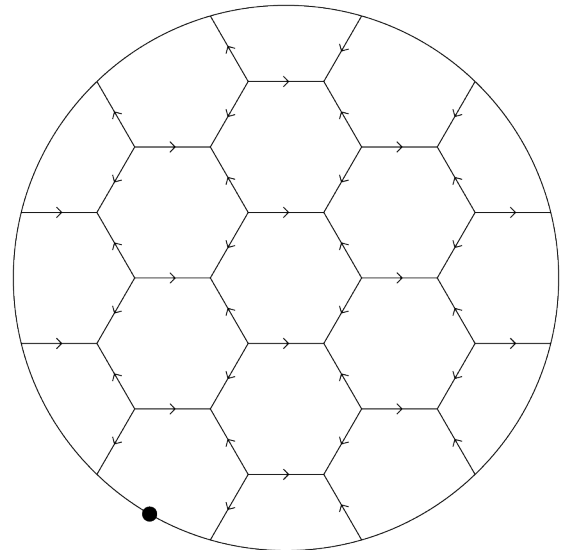
The Oliver Club

www.math.cornell.edu/~oliver/

Bruce Fontaine, Cornell University

Webs, Spiders, and Springer Fibres

Let $G = SL_n$ for $n = 2$ or $n = 3$. We will consider two different bases for the space of G invariants in a tensor product of fundamental G representations. The first is constructed via a set of labeled trivalent graphs called webs. The second is indexed by the irreducible components of certain Springer fibres. From a web we can construct a variety with natural projection to a Springer fibre. Using this projection we can then deduce that at $n = 3$ these bases are not equal and that the change of basis is upper unitriangular.



This is joint work with Joel Kamnitzer and Greg Kuperberg.

Thursday, September 19, 2013
at 4:00 PM in 532 Malott Hall

Refreshments will be served at 3:30 PM in the Mathematics Department lounge (532 Malott Hall).