1058-05-171 **Mike Zabrocki*** (zabrocki@mathstat.yorku.ca), Mathematics and Statistics, York University, Toronto, ON M5B 1B4, Canada. *q,t Counting Dyck Paths with Forced and Forbidden Touch Points.*

I will give a combinatorial formula for certain coefficients of the operator ∇ when it acts on a Hall-Littlewood symmetric functions. This result (almost completely) answers a conjecture posed by Alain Lascoux in the paper by (F)Bergeron-Garsia-Haiman-Tesler that introduced the operator ∇. The combinatorial formula is proven by showing that q,t-counting Dyck paths satisfy the same recursion as a symmetric function expression.

This is joint work with N. Bergeron, F. Descouens, A. Garsia, J. Haglund, A. Hicks, J. Morse and G. Xin. (Received February 14, 2010)