1125-AB-1370 **Alexandra M Florea***, amusat@stanford.edu. *The mean value of quadratic Dirichlet L–functions over function fields.*

We discuss moments of quadratic Dirichlet L-functions over function fields, focusing on the mean value of this family of L-functions. Summing $L(1/2, \chi_D)$ over monic, square-free polynomials D of degree $2g + 1$ (with q fixed and $g \to \infty$), Andrade and Keating obtained an asymptotic formula with a main term of size $|D| \log_q |D|$. We will describe a different approach which allows us to go beyond the number field square-root cancelation and compute a secondary term of size $|D|^{1/3} \log_q |D|$. (Received September 16, 2016)