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Melissa Emory* (mlenq2@mail.missouri.edu). *The Gan-Gross-Prasad Conjecture for General Spin Groups.*

The Gan-Gross-Prasad conjecture is connected with branching laws for automorphic representations of a particular group. Let F be a number field with adèle ring \mathbb{A}_F . Let π_n and π_{n+1} be irreducible, cuspidal, automorphic representations of $SO_n(\mathbb{A}_F)$ and $SO_{n+1}(\mathbb{A}_F)$, respectively. In 1991, Gross and Prasad conjectured the nonvanishing of a certain period integral attached to π_n and π_{n+1} is equivalent to the nonvanishing of $L(\frac{1}{2}, \pi_n \boxtimes \pi_{n+1})$. More recently, Gan, Gross, and Prasad extended the conjecture to the remaining classical groups. In the case of the special orthogonal groups, Ichino and Ikeda refined the conjecture to give an explicit relationship between $L(\frac{1}{2}, \pi_n \boxtimes \pi_{n+1})$ and the period integral as well as proving the $n = 2$ and $n = 3$ cases. We propose a similar conjecture for general spin groups. (Received August 15, 2017)