**Ginzburg, David**

**L-functions for $SO_n \times GL_k$.** (English) Zbl 0684.22009

J. Reine Angew. Math. 405, 156-180 (1990).

We prove Langlands' conjecture for the standard representation of the groups $SO_{2n+1} \times GL_k$ and $SO_{2n} \times GL_k$ where $k < n$. We construct Rankin-Selberg integrals for these groups, prove their convergence, show that they are Euclidean and compute the unramified local integrals. These integrals are a natural generalization of the ones constructed for $SO_{2n+1} \times GL_n$ and $SO_{2n} \times GL_n$ be Gelbart and Piatetski-Shapiro.

Reviewer: D.Ginzburg

**MSC:**

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|---|---|---|
| 22E55 | Representations of Lie and linear algebraic groups over global fields and adèle rings | Cited in **2** Reviews<br>Cited in **14** Documents |
| 11F70 | Representation-theoretic methods; automorphic representations over local and global fields | |
| 11R39 | Langlands-Weil conjectures, nonabelian class field theory | |
| 11M06 | $\zeta(s)$ and $L(s, \chi)$ | |
| 11R42 | Zeta functions and $L$-functions of number fields | |

**Keywords:**

connected reductive algebraic group; automorphic cuspidal representation; Eisenstein series; Langlands' conjecture; standard representation; Rankin-Selberg integrals; unramified local integrals

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