

**Jacquet, Hervé**

**On a result of Waldspurger. (Sur un résultat de Waldspurger.)** (French) Zbl 0605.10015  
*Ann. Sci. Éc. Norm. Supér.* (4) 19, No. 2, 185-229 (1986).

*J. L. Waldspurger's* result is contained in [Compos. Math. 54, 173–242 (1985; Zbl 0567.10021)]. It is a result on the non-vanishing of automorphic  $L$ -functions of forms of  $GL_2$  in the symmetry center. The author gives a different proof for Waldspurger's result. The theorem to be proved is formulated in terms of integrals over tori attached to automorphic representations of  $GL_2$  and forms of  $GL_2$ . It is derived from an interesting identity (Theorem, p. 222) involving integrals of the cuspidal kernels over the square of a torus. The proof of the identity is based on a variant of the trace formula and involves an explicit parametrization of the double cosets modulo a torus and computation and transfer of orbital integrals.

Reviewer: **J. G. M. Mars (Utrecht)**

**MSC:**

- 11F67** Special values of automorphic  $L$ -series, periods of automorphic forms, cohomology, modular symbols
- 11F70** Representation-theoretic methods; automorphic representations over local and global fields

Cited in **5** Reviews  
Cited in **25** Documents

**Keywords:**

non-vanishing of automorphic  $L$ -functions; symmetry center; automorphic representations of  $GL(2)$ ; forms of  $GL(2)$ ; trace formula; orbital integrals

**Full Text:** [DOI](#) [Numdam](#) [EuDML](#)

**References:**

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- [6] J.-L. WALDSPURGER , Sur les valeurs de certaines fonctions  $L$  automorphes en leur centre de symétrie , preprint &lt; 19 p, 1 p 3 &gt;. · Zbl 0567.10021

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