

2023 泛函分析及空间理论 天元暑期研讨班

An estimate for spherical functions on $SL(3, \mathbb{R})$

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Abstract

We prove an estimate for spherical functions $\varphi_\lambda(a)$ on $SL(3, \mathbb{R})$, establishing uniform decay in the spectral parameter λ when the group variable a is restricted to a compact subset of the abelian subgroup A . In the case of $SL(3, \mathbb{R})$, it improves a result by J.J. Duistermaat, J.A.C. Kolk and V.S. Varadarajan by removing the limitation that a should remain regular. As in their work, we estimate the oscillatory integral that appears in the integral formula for spherical functions by the method of stationary phase. However, the major difference is that we investigate the stability of the singularities arising from the linearized phase function by classifying their local normal forms when λ and a vary.

Time: Saturday, July 29, 2023, 14:00-14:50

Venue: Zheng Xin Building, Room 21

More information:

<http://im.hit.edu.cn/2023/0710/c15123a320434/page.htm>

