Year: 2009 | **Vol.: 74** | **Fasc.: 1-2**

Title: Sharp Jordan-type inequalities for Bessel functions

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In this paper our aim is to establish some sharp Jordan and Kober type inequalities for Bessel and modified Bessel functions of the first kind by using the monotone form of l'Hospital's rule. Moreover, by using the classical Cauchy mean value theorem inductively we deduce new series expansions for the Bessel and modified Bessel functions. These results extend and improve many known results in the literature.

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