A. Merino

Dept. of Mathematics, National University of Singapore, Singapore 119076
`matafm@nus.edu.sg`

Transfer of Characters in the Theta Correspondence with One Compact Member

For an irreducible dual pair $(G, G') \subseteq \mathrm{Sp}(W)$ with one member compact and two representations $\Pi \leftrightarrow \Pi'$ appearing in the Howe duality, we give an expression of the character $\Theta_{\Pi'}$ of Π' via the character of Π. We compute the value of $\Theta_{\Pi'}$ on the maximal compact torus T' of G' for the dual pair $(G = U(n, \mathbb{C}), G' = U(p, q, \mathbb{C}))$, which are explicit in low dimensions. For $(G = U(1, \mathbb{C}), G' = U(1, 1, \mathbb{C}))$, we determine the value of the character on both Cartan subgroups of G'.