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Addendum

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We regret an oversight to which Professor Barry Simon drew our attention. The gap occurs in the proof of Proposition 5 which requires establishing that the L_{jk} are proportional to the T_{jk}. The argument, as it stands is incomplete; we have failed to show that the constant k defined by (4.11) does not vanish.

This can be done as follows:

Using (2.5), (2.6), and (3.23) one obtains that k is a positive multiple of $\int X(Y+X)^l dR$ where the integral is over the full orthogonal group and where $X=\det(r)$, $Y=\frac{1}{2}\,\mathrm{trace}(r^t r)$ with r the upper left 2 by 2 submatrix of R. By a suitable group translation in the integration variable one can change the sign of X without affecting Y. If the two expressions are then added, the odd powers of X cancel and k appears as a manifestly positive number.