

## THE SPECTRA OF THE LAPLACE OPERATORS ON CONNECTED COMPACT SIMPLE LIE GROUPS OF RANK 3

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We expose explicit calculations of the spectra of the Laplace operators for smooth real or complex functions on all connected compact simple Lie groups of rank 3 with bi-invariant Riemannian metric and establish the relationship of the obtained formulas with number theory and integer-valued ternary and binary quadratic forms.

*Key words and phrases:* Laplace operator, spectrum, representation of a group, Killing form.

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