

Lomadze, G.

On the number of representations of integers by quadratic forms in twelve variables. (English) Zbl 0915.11023

Georgian Math. J. 5, No. 6, 545-564 (1998).

Continuing earlier research, the author proves formulas for the number of representations of integers by the following quadratic forms

$$f_1 = x_1^2 + \cdots + x_{10}^2 + 2(x_{11}^2 + x_{12}^2),$$

$$f_2 = x_1^2 + \cdots + x_6^2 + 2(x_7^2 + \cdots + x_{12}^2),$$

$$f_3 = x_1^2 + x_2^2 + 2(x_3^2 + \cdots + x_{12}^2),$$

$$f_4 = x_1^2 + \cdots + x_8^2 + 2(x_9^2 + x_{10}^2) + 4(x_{11}^2 + x_{12}^2).$$

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MSC:

[11E20](#) General ternary and quaternary quadratic forms; forms of more than two variables

Cited in 1 Document

[11E25](#) Sums of squares and representations by other particular quadratic forms

[11F27](#) Theta series; Weil representation; theta correspondences

[11E45](#) Analytic theory (Epstein zeta functions; relations with automorphic forms and functions)

Keywords:

[modular forms](#); [theta-functions](#); [of integers](#); [representations](#); [quadratic forms](#)

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