

Fourier Coefficients of Vector-valued Modular Forms of Dimension 2

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Abstract. We prove the following Theorem. Suppose that $F = (f_1, f_2)$ is a 2-dimensional vector-valued modular form on $SL_2(\mathbb{Z})$ whose component functions f_1, f_2 have *rational* Fourier coefficients with *bounded denominators*. Then f_1 and f_2 are classical modular forms on a congruence subgroup of the modular group.