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Eli Roblero-Mendez* (elirm@cimat.mx), Callejon Jalisco S/N, Col. Valenciana., 36240 Guanajuato, Guanajuato, Mexico. *Characterizing the exceptional Lie group $G_{2(2)}$ through its isometries.*

We analyze the structure of a finite volume pseudo-Riemannian analytic manifold M that admits an isometric $SL(3, \mathbb{R})$ -action with a dense orbit. We prove under some conditions that there exists a finite covering from the quotient by a lattice of the simple Lie group $G_{2(2)}$ to the manifold M . (Received May 07, 2013)