Generalized solutions of the kundt class for the einstein equations with the cosmological constant

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Abstract

Vacuum solutions of type III and N in the Kundt class are completely known (W. Kundt, Z. Phys., No. 163, 77 (1961)). In this paper, we present two classes of solutions for the case of the Einstein vacuum equations with cosmological constant A. Each class of solutions is characterized by the fact that the wave 2-surface is a space of constant curvature with K = 6A and K = 2A. © 1997 Plenum Publishing Corporation.