

Charged Spheres In General Relativity Revisited

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Summary

Solutions of Einstein's equations for non-static, shear-free, spherically symmetric charged, perfect-fluid spheres, obtained by symmetry analysis (see C. Wafo Soh and F. M. Mahomed, *Class. Quantum Grav.*, 17 (2000) 3063), are considered for matching with a Reissner-Nordstrom exterior metric (see M. Faulkes, *Can. J. Phys.*, 47 (1969) 1989). It is noted that earlier attempts to solve this problem had neglected the Bianchi identities, which severely limit the obtainable solutions. Of the three classes of solutions obtained in the paper by Wafo Soh et al. only one class of such solutions, which satisfies the strong energy condition $\text{tr}(T) = 0$, exists.

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