Ricci Flat 4-Metrics with Bidimensional Null Orbits

Part I. General Aspects and Nonabelian Case

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The above-mentioned article was erroneously published as one single paper in Volume 92, No. 3 on pp. 209–239. The article actually consists of two parts and should have therefore been published as two separate articles.

Please find below the two titles and abstracts for further clarification:

Ricci Flat 4-Metrics with Bidimensional Null Orbits

Part I. General Aspects and Nonabelian Case

Abstract Pseudo-Riemannian 4-metrics with bidimensional null Killing orbits are studied. Both Lorentzian and Kleinian (or neutral) cases, are treated simultaneously. Under the assumption that the distribution orthogonal to the orbits is completely integrable a complete exact description of Ricci flat metrics admitting a bidimensional nonabelian Killing algebra is found.

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Part II. The Abelian Case

Abstract Ricci flat pseudo-Riemannian 4-metrics possessing an Abelian Killing algebra with bidimensional null orbits are studied under the assumption that the distribution orthogonal to the orbits is completely integrable. The results of this paper together with those of part I (see [4]) give a full description of Ricci flat metrics with bidimensional null Killing orbits whose distribution orthogonal to the orbits is completely integrable.

The online version of the original article can be found at: <http://dx.doi.org/10.1007/s10440-006-9022-9>.

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