

General Relativity and Quantum Cosmology

Fluctuating Twistor-Beam Solutions and Holographic Pre-Quantum Kerr-Schild Geometry

Alexander Burinskii

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Kerr-Schild (KS) geometry is based on a congruence of twistor null lines which forms a holographic space-time determined by the Kerr theorem. We describe in details integration of the non-stationary Debney-Kerr-Schild equations for electromagnetic excitations of black-holes taking into account the consistent back-reaction to metric. The exact KS solutions have the form of singular beam-like pulses supported on twistor null lines of the Kerr congruence. These twistor-beam pulses have very strong back reaction to metric and BH horizon and produce a fluctuating holographic KS geometry which takes an intermediate position between the Classical and Quantum gravity.

Comments: 10 pages, 3 figures, talk at the 1-th Mediteranien Conf. Class.Quant.Grav

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