

Abstract: In this work, we summarise existing results concerning the absence of “gravitational aberration” in Einstein’s general theory of relativity, i.e., the fact that the gravitational “force” points towards the instantaneous position of objects with mass, although the field propagates at the speed of light. The electromagnetic interaction behaves similarly. Thanks to that, the classical limit with infinite speed of propagation of electricity and gravitation is a good approximation of relativistic fields. We use the Liénard–Wiechert potentials to compute the corresponding electric field, and the Christoffel symbols calculated from the metric of so-called photon rocket to determine the gravitational acceleration. We analyse the magnitude and direction of the interaction in both cases. Our own contribution is an attempt to interpret the direction of gravitation interaction in the context of de Sitter universe with non-zero cosmological constant.