

Set up Einstein's field equations for a particular coordinate system and ~~solve the distribution of mass~~ solve the equations to obtain the metric coefficients.

Put the metric coefficients into the geodesic equations to obtain the geodesics of the metric.

The test particle will follow a path that is one of these geodesics.

The coordinate system chosen is not irrelevant; the equations are simpler to solve for some systems than others. But they can be expressed in different coordinate systems, and when they are solved, the metric coefficients and thus the geodesics will be different, but this does not correspond to any difference in physical behaviour; the path in space of the particles is the same, as in fact they must be, because between any two events there is only one curve of minimum ~~elapsed~~ proper time. In this sense the general theory is completely general and will give the path of the particles whichever coordinates are chosen.

e) The general theory is completely general, and reduces to the special theory in situations of low strength gravitational fields. However while it is the most complete theory we have, it is so complex as to be impra-