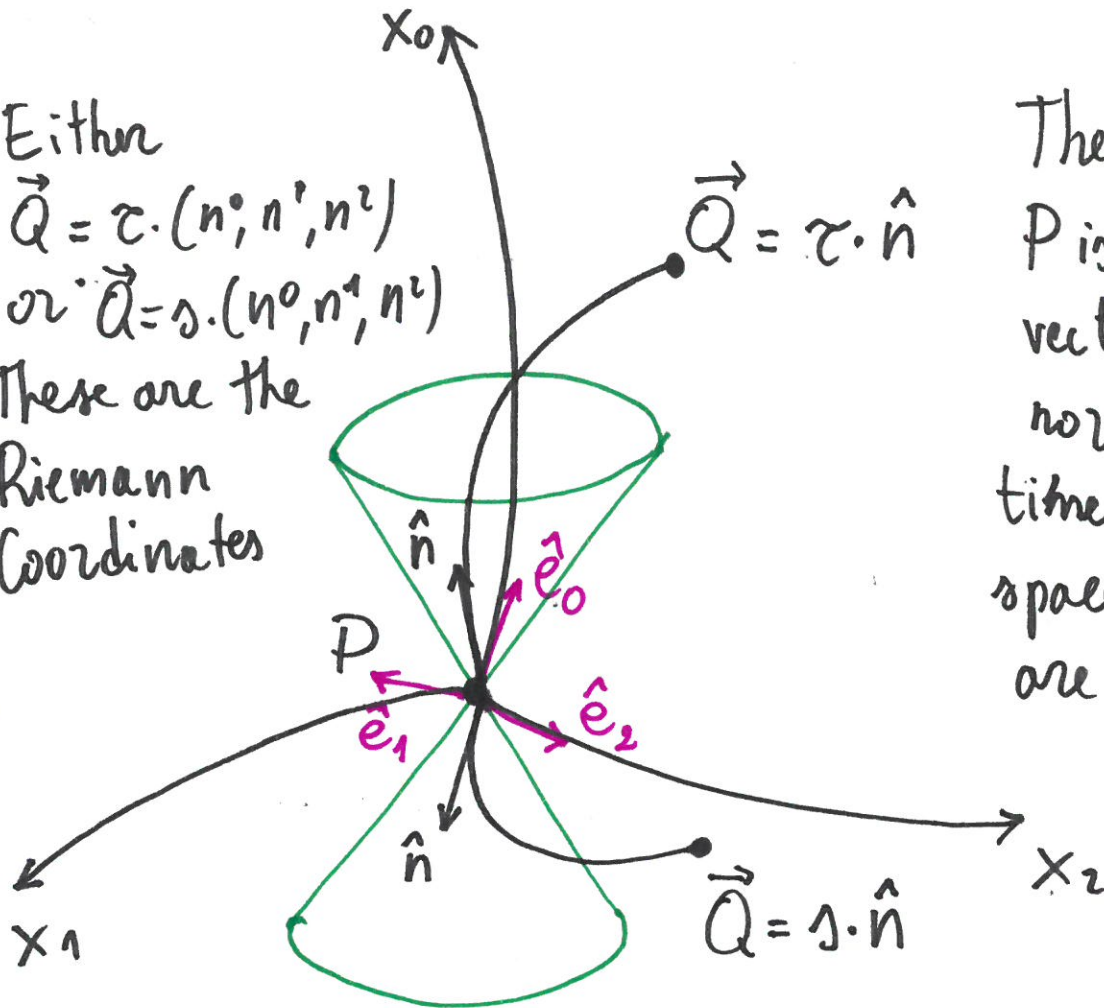


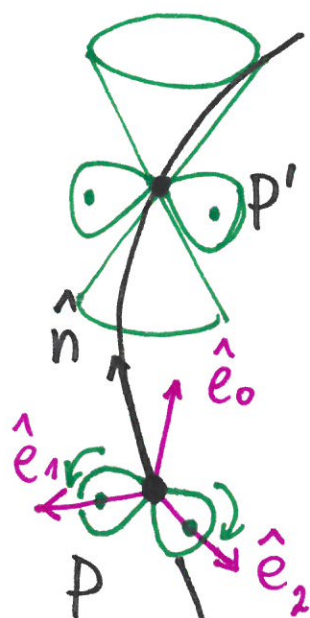
THE LOCAL INERTIAL FRAME AND THE RIEMANN COORDINATES ①

Either
 $\vec{Q} = \tau \cdot (n^0, n^1, n^2)$
 or $\vec{Q} = \gamma \cdot (n^0, n^1, n^2)$
 These are the
 Riemann
 Coordinates



The space around
 P is flat, the basis
 vectors $\hat{e}_i$ ortho-
 normal and all
 timelike as well as
 space like points
 are represented.

This is the
 FREE FALLING
 FRAME



The gyroscopes  give the
 parallel transport of the basis
 vectors. At each point P' one
 can replicate the Riemann
 coordinates construction

timelike

This is the ^Vgeodesic that at P starts
 with direction $\hat{n}$. One can change
 the direction indeed.