OGRe: GW: $g_{\mu\nu}(t, x, y, z) = \begin{pmatrix} -1 & 0 & 0 & 0 \\ 0 & e^{2\,\beta[u]}\,L[u]^2 & 0 & 0 \\ 0 & 0 & e^{-2\,\beta[u]}\,L[u]^2 & 0 \\ 0 & 0 & 0 & 1 \end{pmatrix}$