

```
SetDirectory[NotebookDirectory[]];
```

```
<< GREAT.m
```

```
GREAT functions are: IMetric, Christoffel,
```

```
Riemann, Ricci, SCurvature, EinsteinTensor, SqRicci, SqRiemann.
```

```
Enter 'helpGREAT' for this list of functions
```

```
x = {x0, x1}
```

```
{x0, x1}
```

```
(met = {{r^2 * (Cosh[x0]^2 + Sinh[x0]^2), 0}, {0, r^2 * Cosh[x0]^2}}) // MatrixForm
```

```

$$\begin{pmatrix} r^2 (\cosh[x_0]^2 + \sinh[x_0]^2) & 0 \\ 0 & r^2 \cosh[x_0]^2 \end{pmatrix}$$

```

```
SCurvature[met, x]
```

```

$$-\frac{2 \operatorname{Sech}[2 x_0]^2}{r^2}$$

```