

```
In[28]:= Clear["Global`*"]
```

```
In[29]:= SetDirectory["/Users/kevin/papers/math/GRcode"]
```

```
Out[29]= /Users/kevin/papers/math/GRcode
```

```
In[30]:= << GREAT.m
```

```
GREAT functions are: IMetric, Christoffel,  
Riemann, Ricci, SCurvature, EinsteinTensor, SqRicci, SqRiemann.
```

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

```
In[31]:= x = {r, theta, phi}
```

```
Out[31]= {r, theta, phi}
```

```
In[32]:= (g = {{1/(1 - (r/L)^2), 0, 0}, {0, r^2, 0}, {0, 0, r^2 Sin[theta]^2}}) // MatrixForm
```

```
Out[32]//MatrixForm=
```

$$\begin{pmatrix} \frac{1}{1 - \frac{r^2}{L^2}} & 0 & 0 \\ 0 & r^2 & 0 \\ 0 & 0 & r^2 \sin^2[\theta] \end{pmatrix}$$

```
In[33]:= SCurvature[g, x]
```

```
Out[33]= \frac{6}{L^2}
```