

```

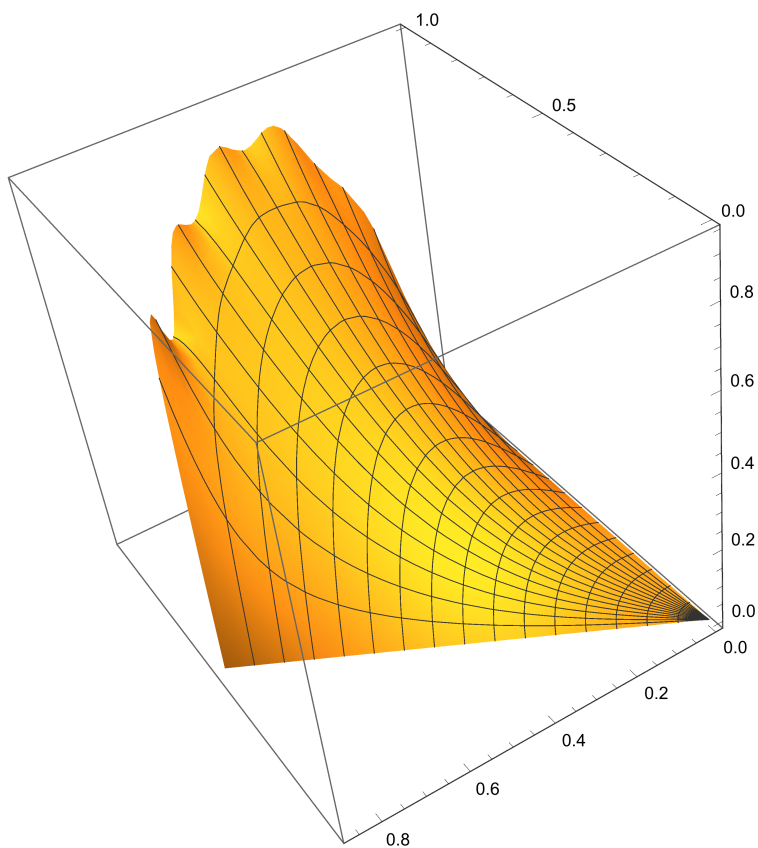
In[378]:= Clear[a, b, c, n, m, x, r, a, G, phi]
rho := 1
theta0 :=  $\frac{\pi}{3}$ 
f[theta_] := 5 theta e-2 theta
nTerms := 10

lambda[n_] :=  $\left(\frac{\pi n}{\text{theta0}}\right)^2$ 
phi[theta_, n_] := Sin[theta Sqrt[lambda[n]]]
G[r_, n_] := rSqrt[lambda[n]]
B[n_] :=  $\frac{2 \int_0^{\text{theta0}} f[\theta] \text{phi}[\theta, n] d\theta}{\text{theta0} G[\text{rho}, n]}$ 

u[r_, theta_, M_] :=  $\sum_{n=1}^M B[n] G[r, n] \text{phi}[\theta, n]$ 
z[r_, theta_] := Evaluate[u[r, theta, nTerms]]
ParametricPlot3D[{r * Cos[theta], r * Sin[theta], z[r, theta]}, {r, 0, rho}, {theta, 0, theta0}]

```

Out[389]=



```
In[390]:= myPlots :=  
  Table[PolarPlot[z[r,  $\theta$ ], { $\theta$ , 0, theta0}, PlotRange → {0, 0.8}], {r, 0, rho, .01}]
```

```
Show[myPlots]
```

