

Geodesics on the Modular Surface

We show closed geodesics on the modular surface, which correspond for varying d to the matrix:

$$x_d = \frac{1}{d^{\frac{1}{4}}} \begin{pmatrix} \frac{d+\sqrt{d}}{2} & \frac{d-\sqrt{d}}{2} \\ 1 & 1 \end{pmatrix}$$

