[mex59] Scattering cross section for inverse square potential

Show that the cross section for scattering from the stationary potential $V(r) = \kappa/r^2$ with $\kappa > 0$ is

$$\sigma(\theta) = \frac{\kappa\pi^2}{E} \frac{\pi - \theta}{\theta^2(2\pi - \theta)^2 \sin\theta}.$$

Solution: