

Fall 3.2

$$1 + \lambda_1(\mu - \sqrt{2 - \mu^2}) + \lambda_2 = 0 \Leftrightarrow \lambda_2 = -1 - \lambda_1(\mu - \sqrt{2 - \mu^2})$$

$$\lambda_1(\mu - \sqrt{2 - \mu^2}) - 1 - \lambda_1(\mu - \sqrt{2 - \mu^2}) = 0$$

$$\lambda_1 = \frac{1}{2\sqrt{2 - \mu^2}}$$

für $\mu \in (-\sqrt{2}, \sqrt{2}]$ erhält man
den KKT-Punkt

$$\lambda_2 = \frac{\mu + \sqrt{2 - \mu^2}}{2\sqrt{2 - \mu^2}}$$

$$\left(\frac{\mu - \sqrt{2 - \mu^2}}{2}, \frac{\mu + \sqrt{2 - \mu^2}}{2} \right)$$

$$\left(\frac{1}{2\sqrt{2 - \mu^2}}, \frac{\mu + \sqrt{2 - \mu^2}}{2\sqrt{2 - \mu^2}} \right)$$

