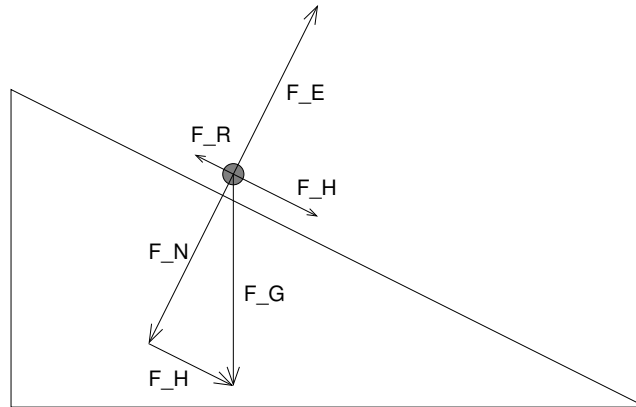


0.0.1 Bewegungen auf der Schiefen Ebene



Gesamtkraft: $\vec{F} = \vec{F}_H + \vec{F}_R$;

$$\sin \alpha = \frac{F_H}{F_G} = \frac{F_H}{mg}; \Rightarrow F_H = mg \cdot \sin \alpha;$$

$$\cos \alpha = \frac{F_N}{F_G} = \frac{F_N}{mg}; \Rightarrow F_N = mg \cdot \cos \alpha;$$

$$F_R = \mu \cdot F_N = \mu mg \cdot \cos \alpha;$$

$$F = F_H - F_R = mg (\sin \alpha - \mu \cos \alpha);$$

$$a = \frac{F}{m} = g \cdot (\sin \alpha - \mu \cos \alpha);$$