



Static: Perspective A

$$F_A \neq F_{fr} \leq \mu_s F_N = \mu_s F_{GA} \text{ invalid}$$

Block A slides relative to block B.

Block A:

$$m_A a = F_A - F_{fr}$$

$$a_A = \frac{F_A - \mu_k F_N}{m_A} = \frac{F_A - \mu_k F_{GA}}{m_A} = \frac{F_A - \mu_k F_A}{g}$$

Block B:

$$m_B a = F_{fr}$$

$$a_B = \frac{F_{fr}}{m_B} = \frac{\mu_k F_{GA}}{\frac{F_{GB}}{g}}$$