

Grafisches Vektorverfahren über EULER-Gln. und Satz von Burmester

Kurbelschwinge $A_0A(K)BB_0$

geg.: $\langle v_A \rangle = 57 \text{ mm/s}$, $n = 60 \text{ min}^{-1}$

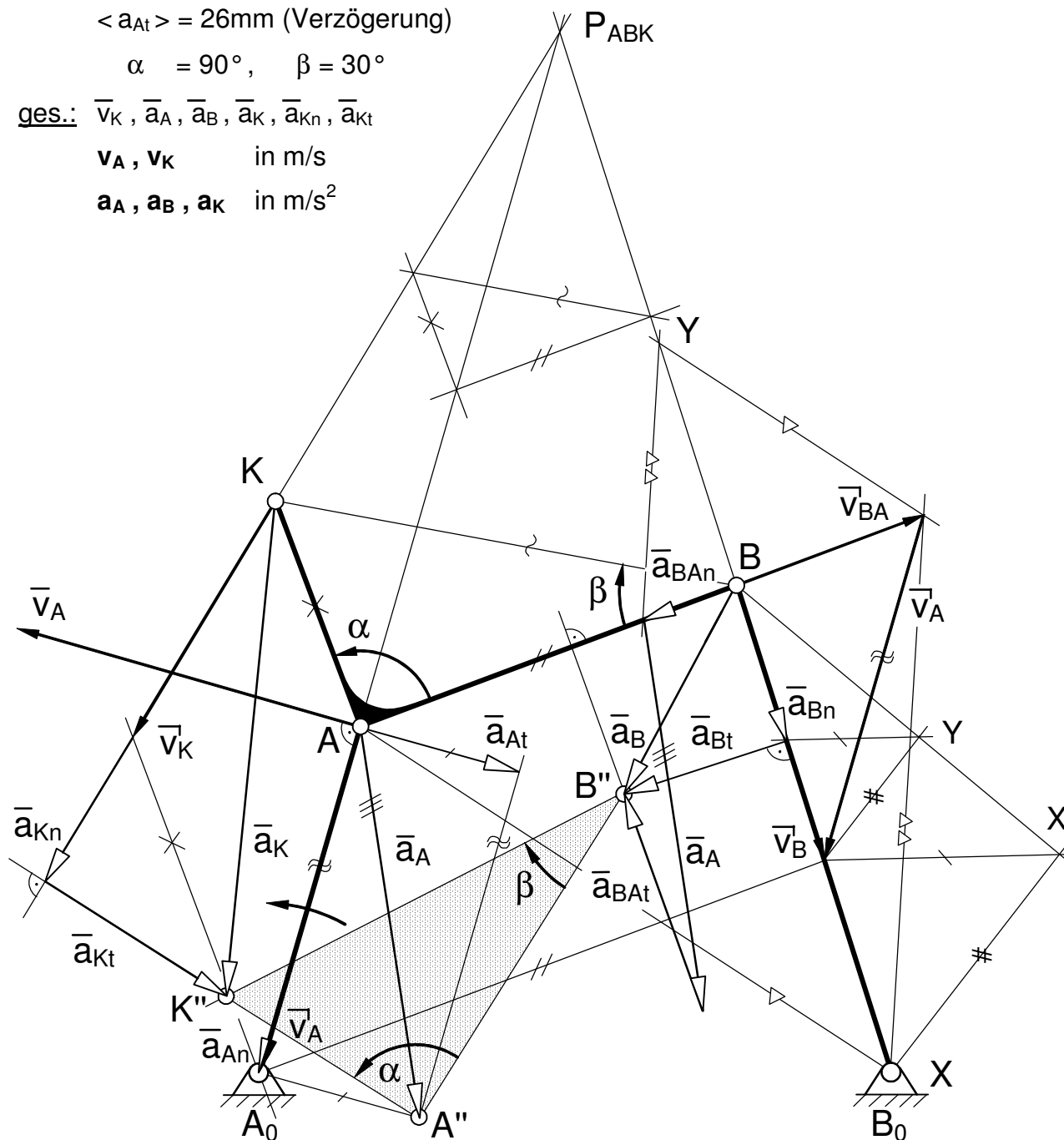
$\langle a_{At} \rangle = 26 \text{ mm/s}^2$ (Verzögerung)

$\alpha = 90^\circ$, $\beta = 30^\circ$

ges.: $\bar{v}_K$, $\bar{a}_A$, $\bar{a}_B$, $\bar{a}_K$, $\bar{a}_{Kn}$, $\bar{a}_{Kt}$

$\mathbf{v}_A$, $\mathbf{v}_K$ in m/s

$\mathbf{a}_A$, $\mathbf{a}_B$, $\mathbf{a}_K$ in m/s^2



Euler'sche Gleichungen

$$\bar{\mathbf{v}}_B = \bar{\mathbf{v}}_A + \bar{\mathbf{v}}_{BA}$$

$$\bar{\mathbf{a}}_B = \bar{\mathbf{a}}_A + \bar{\mathbf{a}}_{BA}$$

$$\bar{\mathbf{a}}_{Bn} + \bar{\mathbf{a}}_{Bt} = \bar{\mathbf{a}}_{An} + \bar{\mathbf{a}}_{At} + \bar{\mathbf{a}}_{BA n} + \bar{\mathbf{a}}_{BA t}$$

Satz von Burmester

$$\triangle ABK \sim \triangle A''B''K''$$