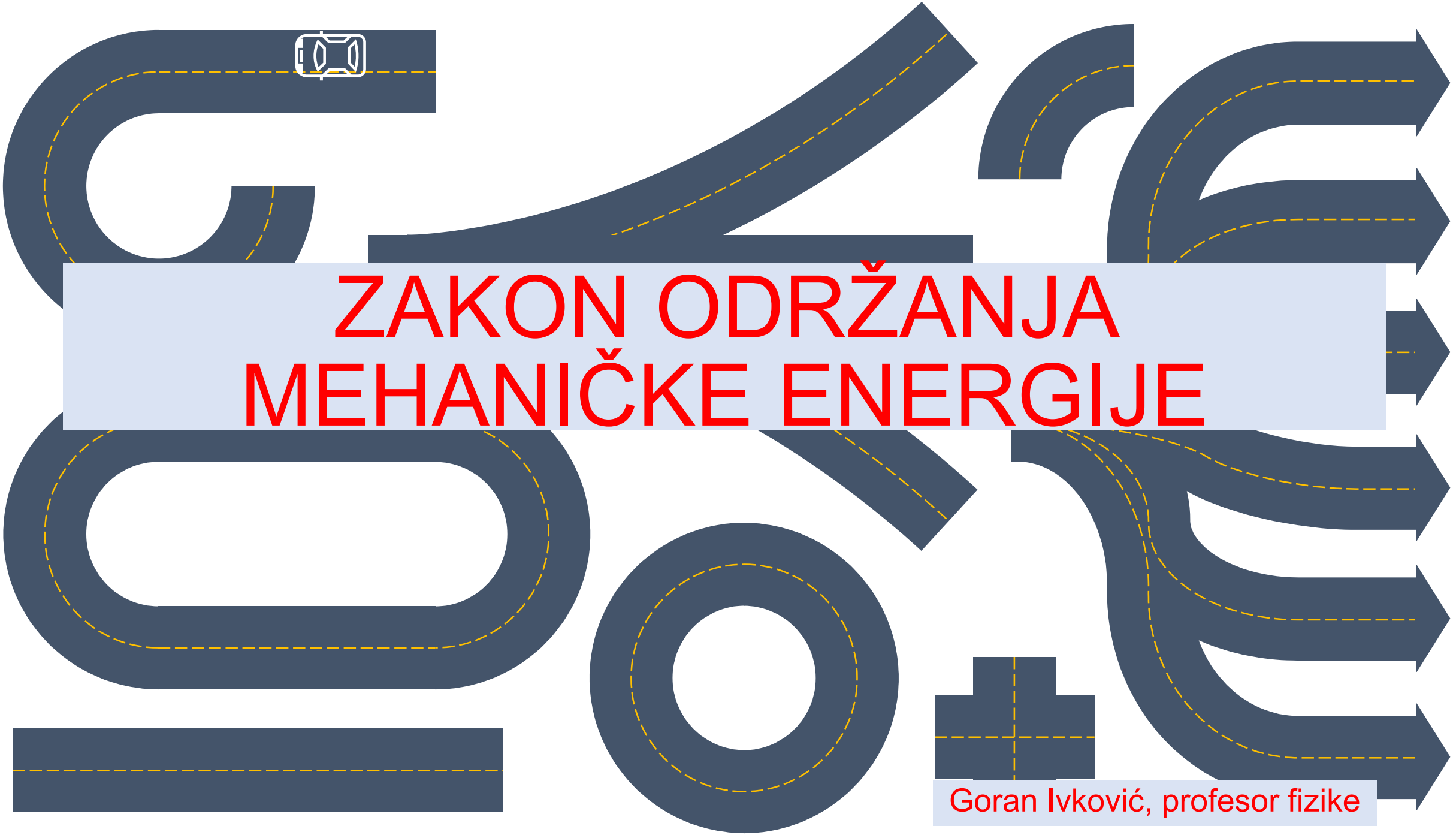

ZAKON ODRŽANJA MEHANIČKE ENERGIJE

Goran Ivković, profesor fizike

$v_0 = 0\,\frac{m}{s}$

h_{max}

$E_k = \frac{m \cdot {v_0}^2}{2} = 0J$

$E_p = m \cdot g \cdot h_{max}$

$E_u = E_k + E_p = m \cdot g \cdot h_{max}$ =20J

$E_u = E_u$

$E_u = E_k + E_p = \frac{m \cdot v^2}{2} + m \cdot g \cdot h$ =20J

$m \cdot g \cdot h_{max} = \frac{m \cdot {v_{max}}^2}{2}$

v_{max}

$h = 0m$

$E_k = \frac{m \cdot {v_{max}}^2}{2}$

$E_p = m \cdot g \cdot h = 0J$

$E_u = E_k + E_p = \frac{m \cdot {v_{max}}^2}{2}$ =20J

$g \cdot h_{max} = \frac{{v_{max}}^2}{2}$

Kada na telo ne deluju spoljašnje sile ukupna mehanička energija je konstantna (stalna, ista).

$h_{max} = \frac{{v_{max}}^2}{2 \cdot g}$

$2 \cdot g \cdot h_{max} = {v_{max}}^2$

${v_{max}}^2 = 2 \cdot g \cdot h_{max}$