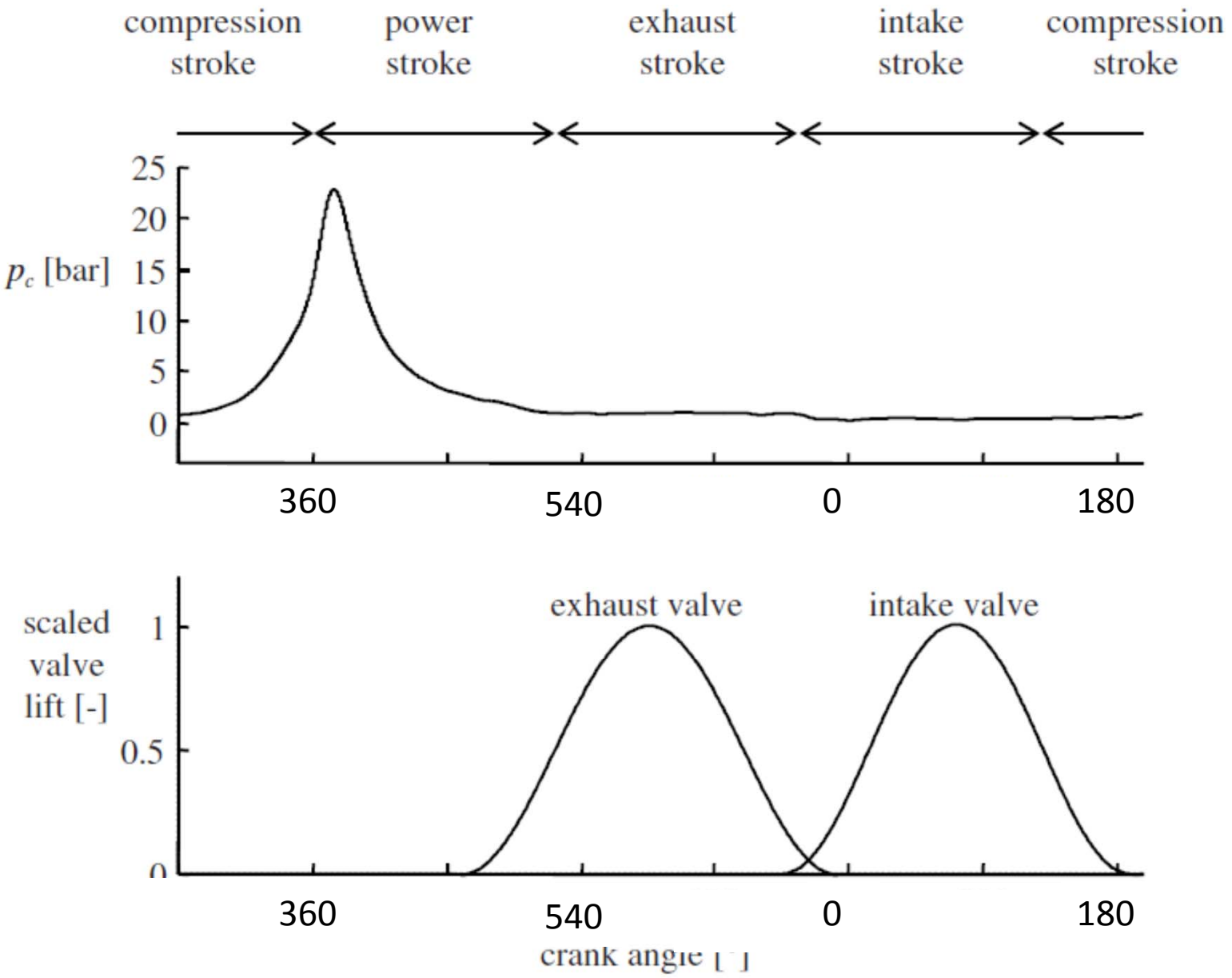
MAK 3031- İçten Yanmalı Motorlar

Yrd. Doç. Dr. Levent YÜKSEK

MAK 3031- Internal Combustion Engines

Asst. Prof. Dr. Levent YÜKSEK
Yıldız Technical University-Automotive Sub-Division
Internal Combustion Engine Laboratory

Volumetric efficiency



Volumetric efficiency

$$\eta_{vol} = \frac{L_{real}}{L_{ideal}}$$

Volumetric efficiency

İdeal volumetric efficiency

$$\eta_{vol} = \frac{1}{\varepsilon - 1}\left(\varepsilon \frac{P_1}{P_0} - \frac{P_r}{P_0}\right)$$

$P_1 = Intake\ stroke\ pressure$

$P_0 = Ambient\ pressure$

$P_r = Residual\ gas\ pressure$

$\varepsilon = Compression\ ratio$

Turbocharging