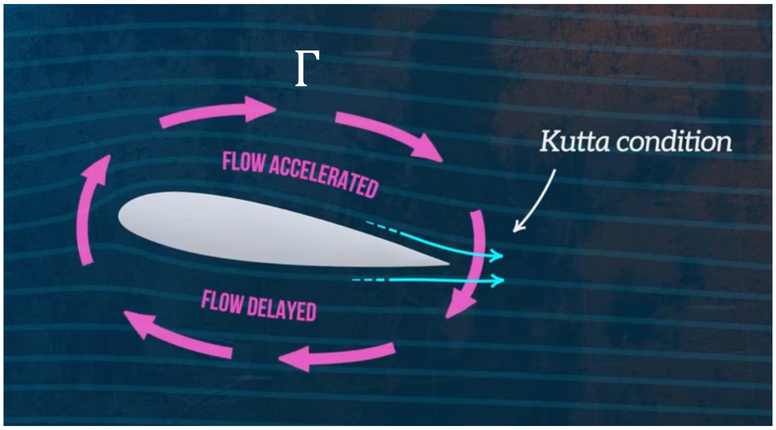
(KEY CONCEPT) [B-2-3]



Kutta Condition:
Although there always be a pressure difference (higher on the lower surface and lower on the upper surface), the flow at the trailing edge must always leave "**smoothly**" (without "**curl**").

Circulation (Γ)**:**
Adjustment of lower surface and higher surface flow field to satisfy Kutta condition at the trailing edge.

Kutta-Joukowski Theorem (Lift Generation due to Circulation):

$$L' = \rho_\infty V_\infty \Gamma$$

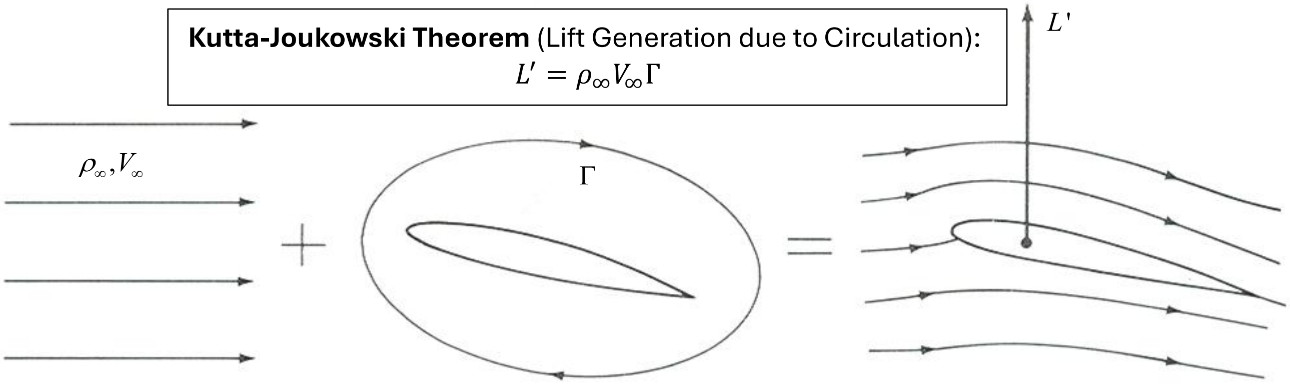


Image of flow field circulation with Kutta condition (source: The Efficient Engineer: efficientengineer.com)
Circulation theory of aerodynamics sketch (source: J.D. Anderson "Fundamentals of Aerodynamics" 2016)