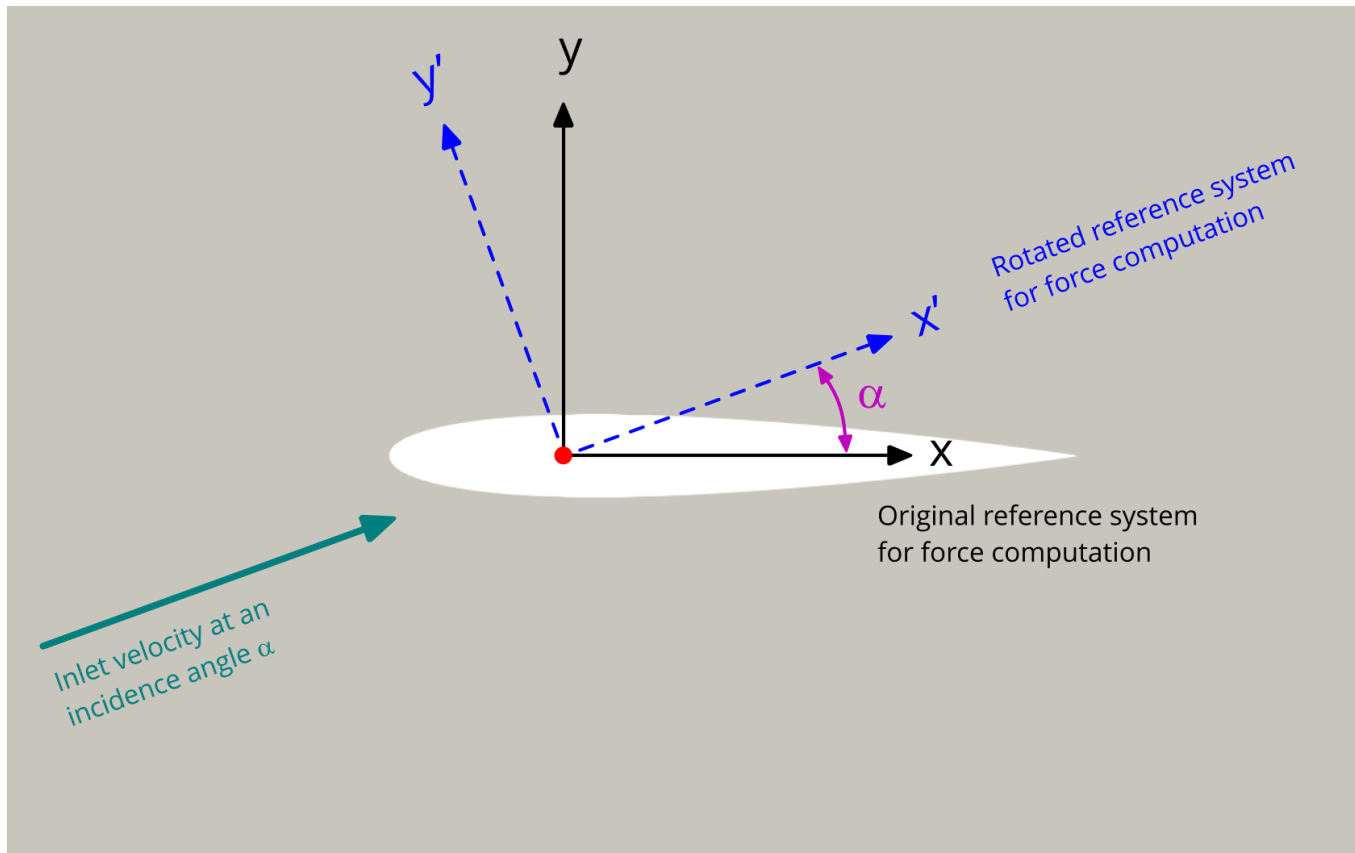- Reference axes to compute the lift and drag coefficients.

- Remember, lift and drag are perpendicular and parallel to the incoming flow, respectively.

- So, if the inlet velocity is entering at a given angle, you should adjust the vectors **liftDir** and **dragDir** so they are aligned with the incoming flow (rotation matrix).

- Personally speaking, I prefer to rotate the geometry instead of rotating the incoming flow.

  - But this requires updating the geometry and mesh.

liftDir $(\text{-}\sin(\alpha), \cos(\alpha), 0)$

dragDir $(\cos(\alpha), \sin(\alpha), 0)$