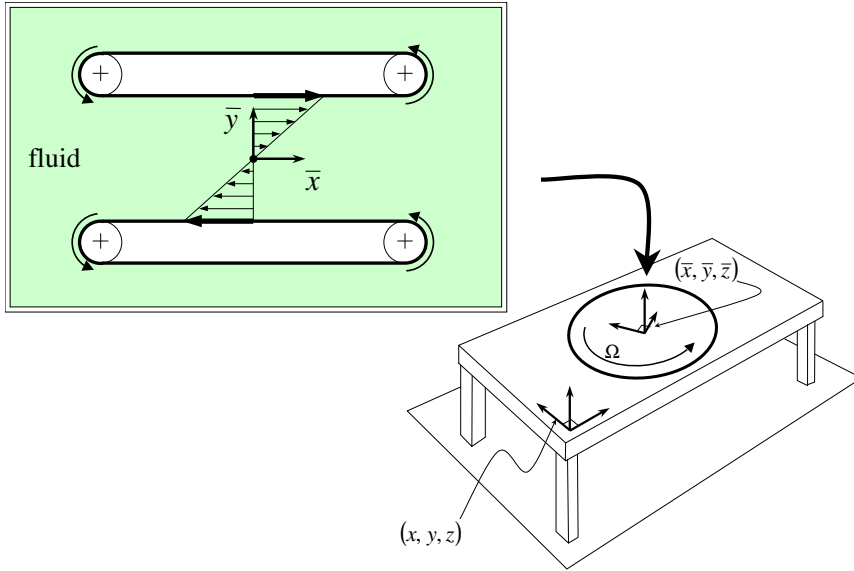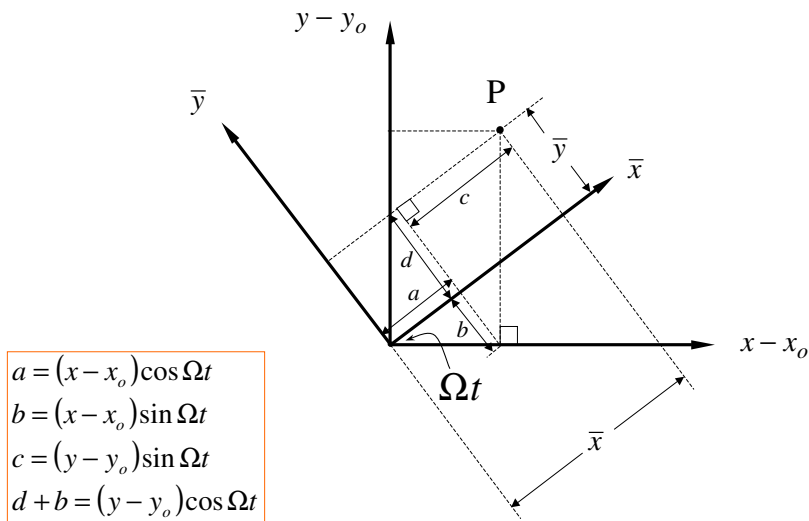## Shear flow in a rotating frame of reference

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Shear flow in a rotating frame of reference

$$a = (x - x_o)\cos \Omega t$$
$$b = (x - x_o)\sin \Omega t$$
$$c = (y - y_o)\sin \Omega t$$
$$d + b = (y - y_o)\cos \Omega t$$

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Summary: *Generalized Linear-Viscoelastic Constitutive Equations*

PRO:
- A first constitutive equation with memory
- Can match SAOS, step-strain data very well
- Captures start-up/cessation effects
- Simple to calculate with
- Can be used to calculate the LVE spectrum

CON:
- Fails to predict shear normal stresses
- Fails to predict shear-thinning/thickening
- Only valid at small strains, small rates
- **Not frame-invariant**