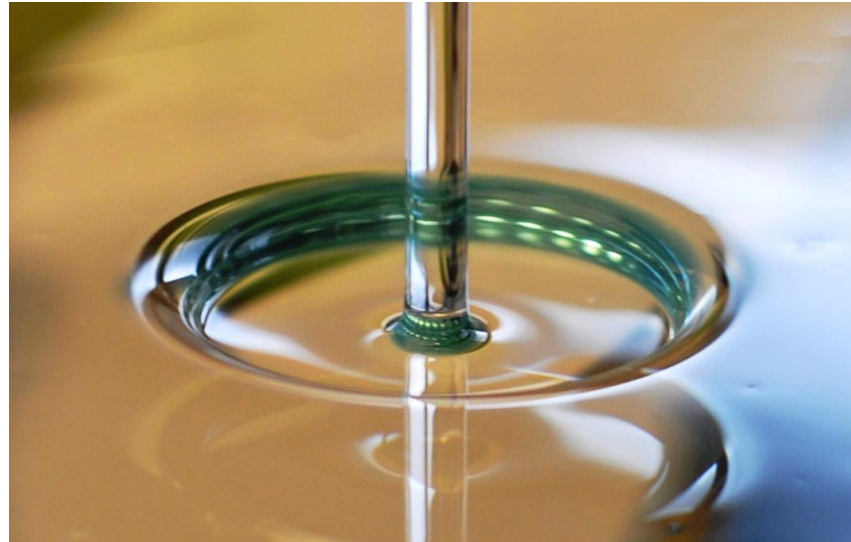
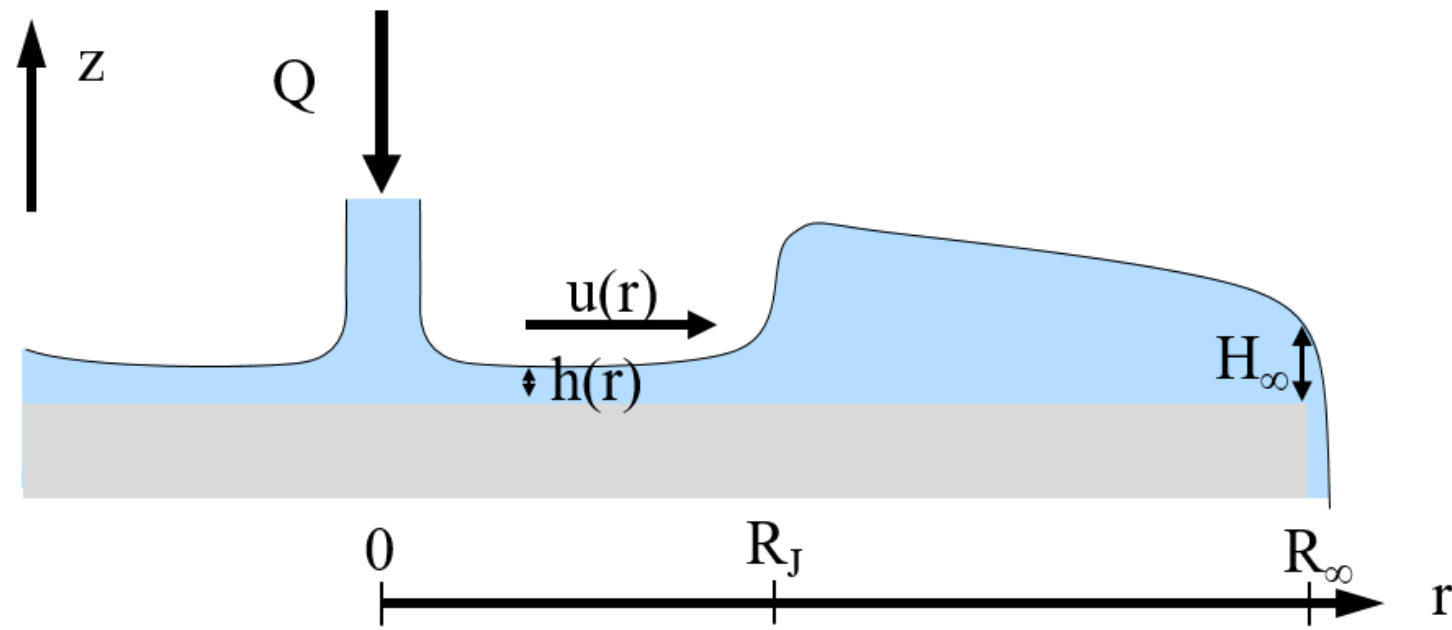


# Ressaut circulaire hydraulique : comment prendre en compte la tension de surface ?

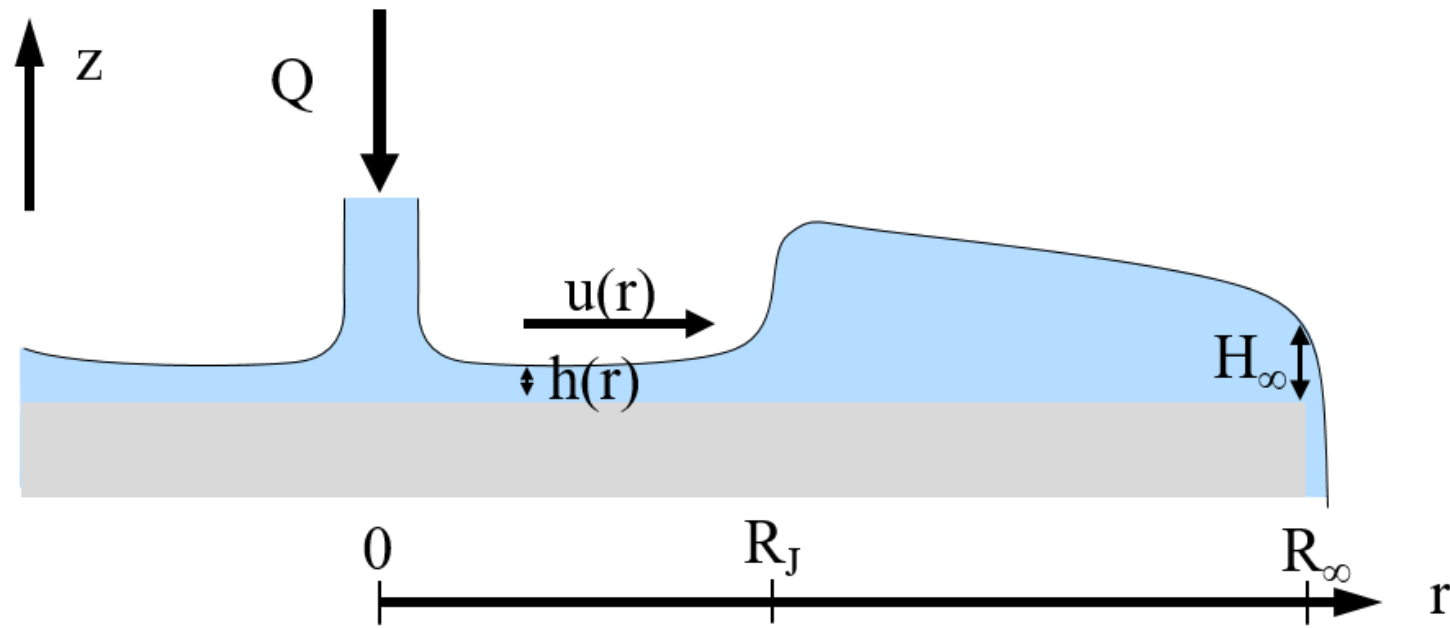


Alexis Duchesne & Laurent Limat



Bohr *et al.* propose:

$$R_J \sim Q^{5/8} \nu^{-(3/8)} g^{-(1/8)}$$

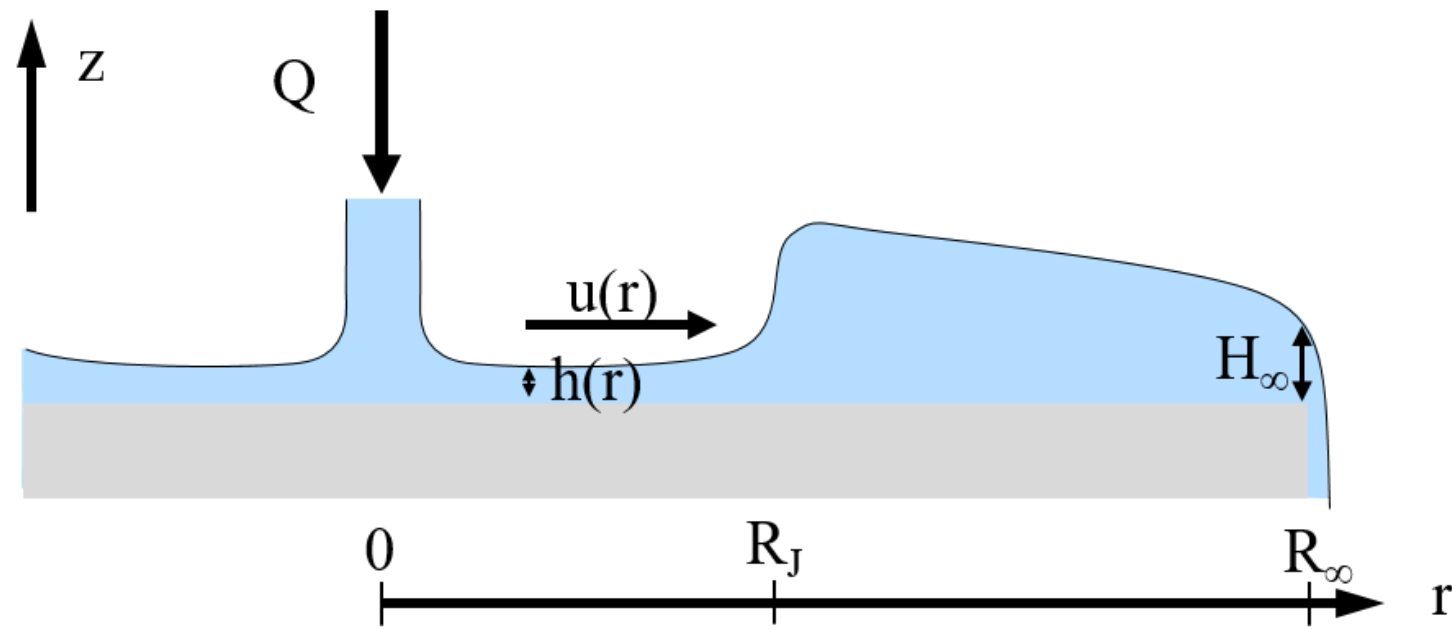


Bohr *et al.* propose:

$$R_J \sim Q^{5/8} \nu^{-(3/8)} g^{-(1/8)}$$

Bhagat *et al.* propose:

$$R_J \sim Q^{3/4} \rho^{1/4} \nu^{-(1/4)} \gamma^{-(1/4)}$$



Bohr *et al.* propose:

$$R_J \sim Q^{5/8} \nu^{-(3/8)} g^{-(1/8)}$$

Bhagat *et al.* propose:

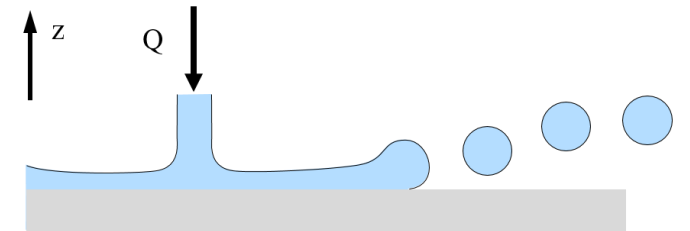
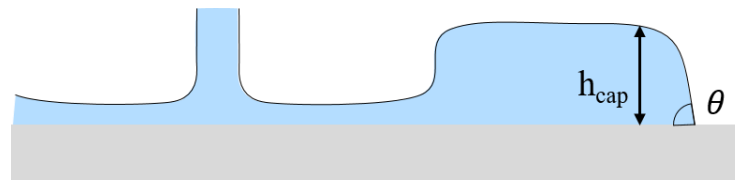
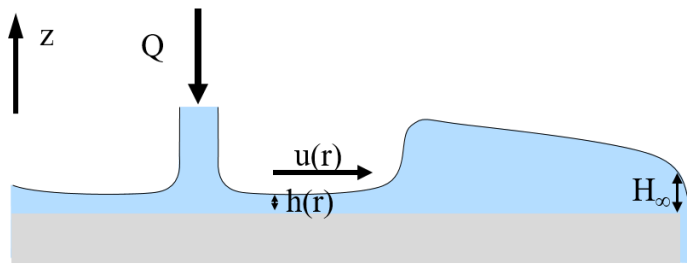
$$R_J \sim Q^{3/4} \rho^{1/4} \nu^{-(1/4)} \gamma^{-(1/4)}$$

En contradiction...



Dans le poster:

- Nous corrigeons l'approche de Bhagat
- Nous réconcilions les 2 lois d'échelle qui dépendent des conditions limites...



A. Duchesne & L. Limat, **Circular hydraulic jumps: where does surface tension matter?**, *J. Fluid Mech.*, vol. 937, R2 (2022)