0.1 What information do patches exchange?

- Mesh-points (Lagrange polynomials at interfaces, conforming projection)
- Local sums to compute the derivatives at the interfaces thanks to this type of sum of spline values (Advection)

$$\sum_{x_i \in \text{global space}} \alpha_i s(x_i) = \sum_{p \in \text{Patches}} \sum_{x_i \in p} \alpha_i s(x_i),$$

- Characteristic feet outside of the patch (Advection),
- Interpolated values for $\mathbf{A}$ and ρ (Advection)