First talk : **Stable points of the scheme of arcs : Curve Selection Lemma.**

The space of arcs X_∞ of a singular variety X over a perfect field k has finiteness properties when we localize at its stable points. In the talk we will introduce the stable points P of X_∞ and discuss these finiteness properties of the local rings $\mathcal{O}_{X_\infty,P}$. In particular, we will present our Curve Selection Lemma and show, as consequence, a characterization of the image of the Nash map in terms of a property of wedges.

Second talk : **Mather discrepancy as an embedded dimension in the space of arcs.**

We will point out our interest in computing the dimension of the complete local ring $\widehat{\mathcal{O}_{X_\infty,P_E}}$ when P_E is the stable point defined by a divisorial valuation ν_E on X. We will also present our last result, together with H. Mourtada : "Assuming char $k = 0$, we prove that embdim $\widehat{\mathcal{O}_{X_\infty,P_E}} = \widehat{k}_E + 1$ where $\widehat{k}_E$ is the Mather discrepancy of X with respect to ν_E. We also obtain that dim $\widehat{\mathcal{O}_{X_\infty,P_E}}$ has as lower bound the Mather-Jacobian log-discrepancy of X with respect to ν_E. For X normal and complete intersection, we prove as a consequence that points P_E of codimension one in X_∞ have discrepancy $k_E \leq 0$".