• In reactions at Fermi energies observables (especially isospin observables) are generally influenced by cluster emission:
- fully consistent dynamical treatment needed
- the different treatment of cluster emission in transport theories is at the origin of the model dependence currently seen for some observables

• Clusters in transport theories:
How are they formed ? Are they due to short-range correlations ?
In HIC, at which density-temperature conditions, reached along the reaction path, is their production rate maximum ?

• Relevance of HIC results in the astrophysical context
Exp: selection of events sufficiently compatible with statistical equilibrium → importance of 4\pi detection
Theo: density-temperature-isospin conditions can be mapped with the help of transport theories (looking at several observables)
- Box calculations (equilibrated NM) could be performed at the same thermodynamical conditions and compared with the results of HIC simulations
→ Check of the equilibrium hypothesis in HIC and of possible "open system" effects.