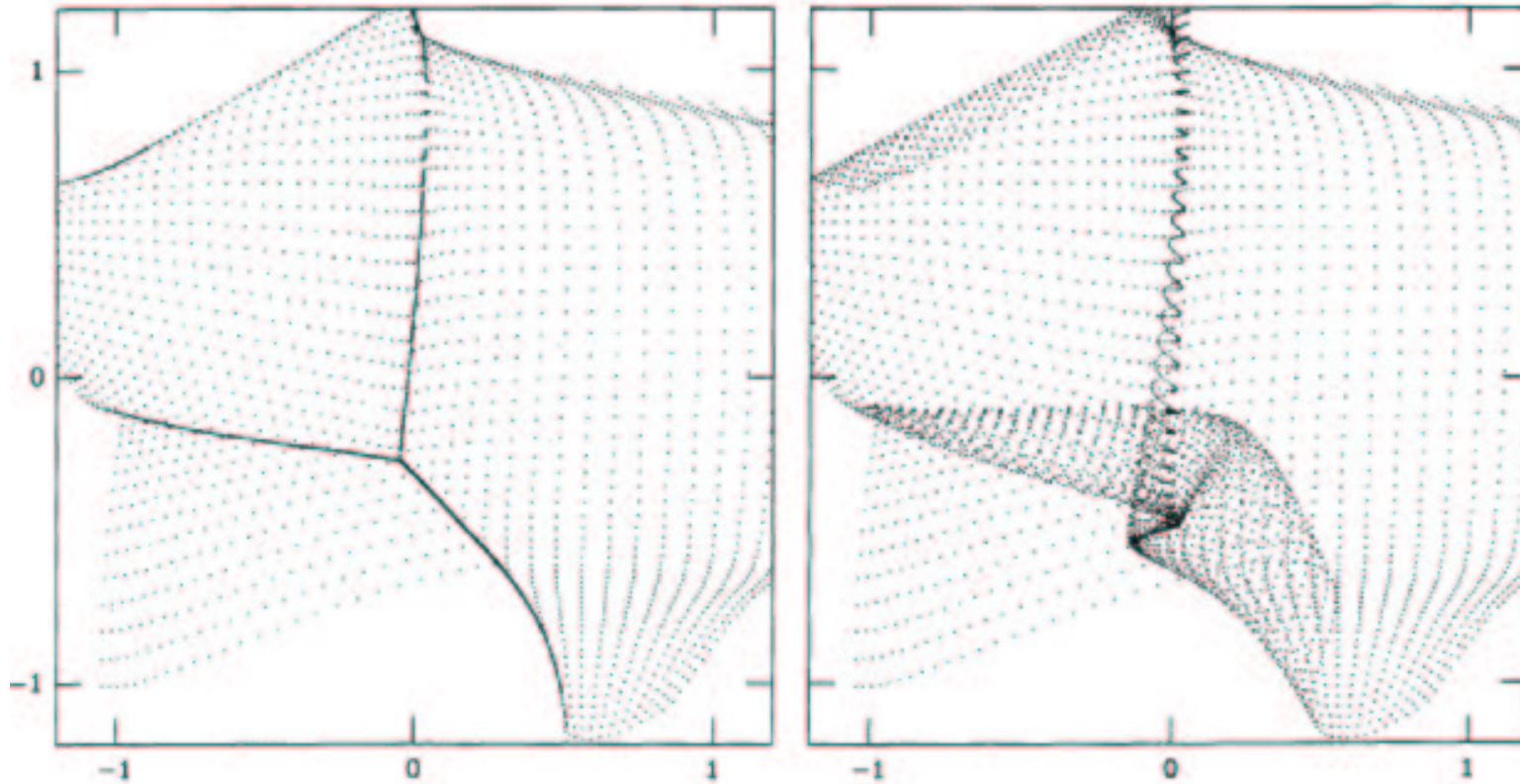


Dynamique des fluides et formation des structures

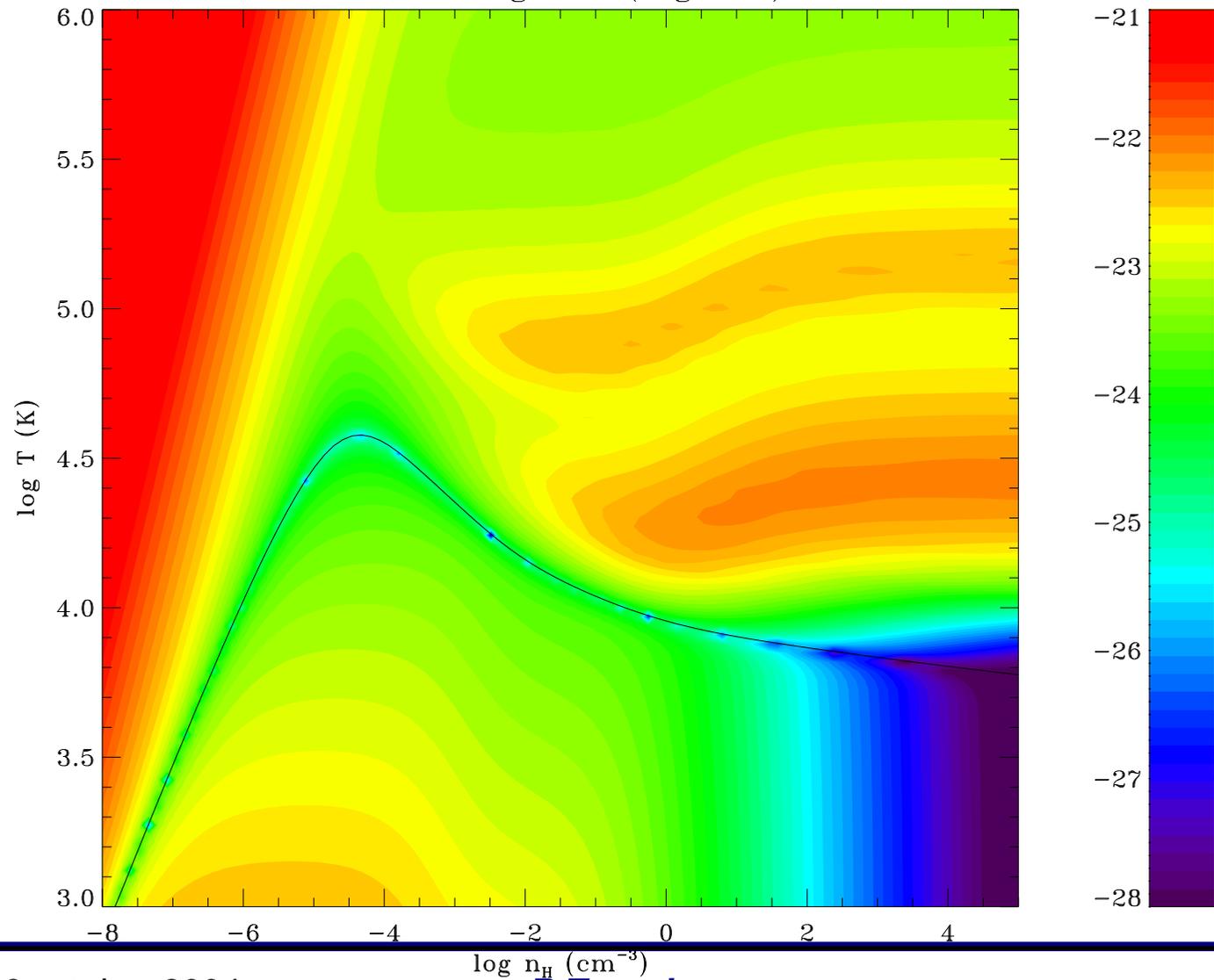
- 1- Les équations d'Euler et au-delà
- 2- Le régime linéaire : ondes sonores et longueur de Jeans
- 3- Vers le régime non-linéaire : l'équation de Burgers
- 4- Ondes de chocs
- 5- Modèles sphériques
- 6- Equilibre hydrostatique
- 7- Méthodes numériques
- 8- Application à la formation des structures

Modèle d'adhésion

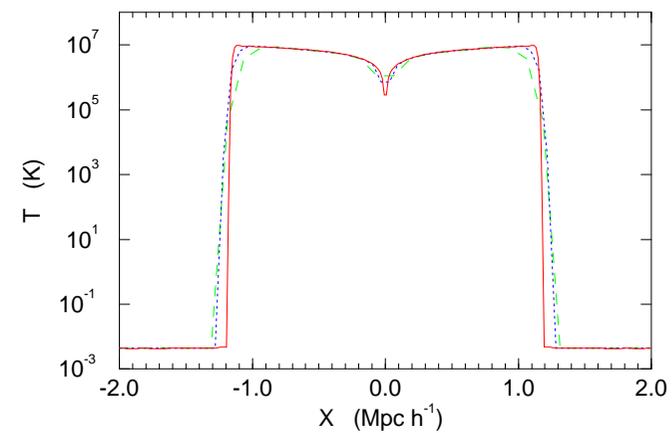
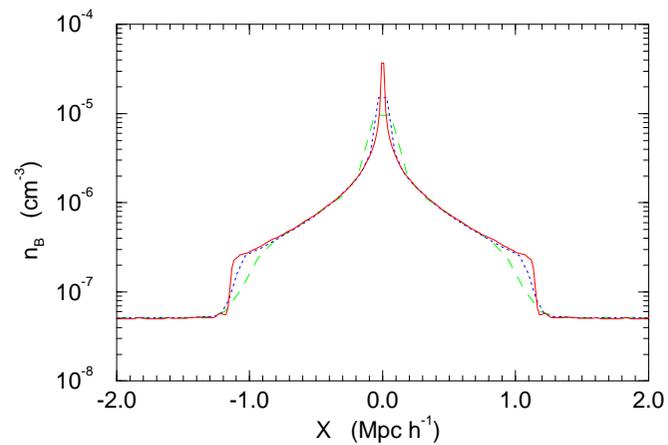
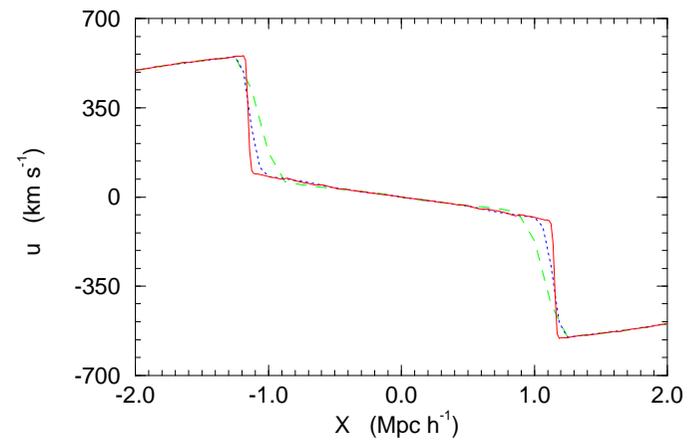
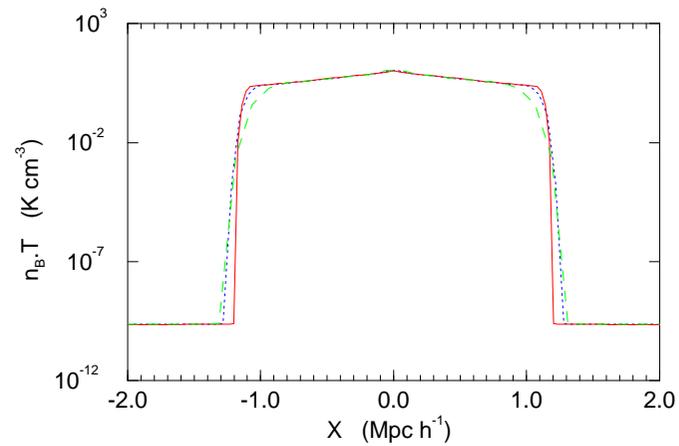


Refroidissement par collisions inélastiques

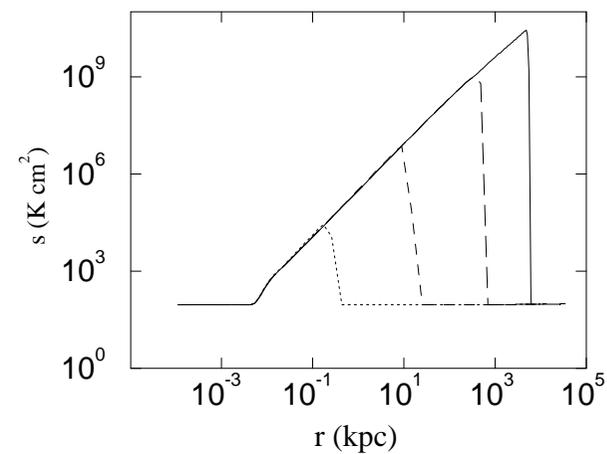
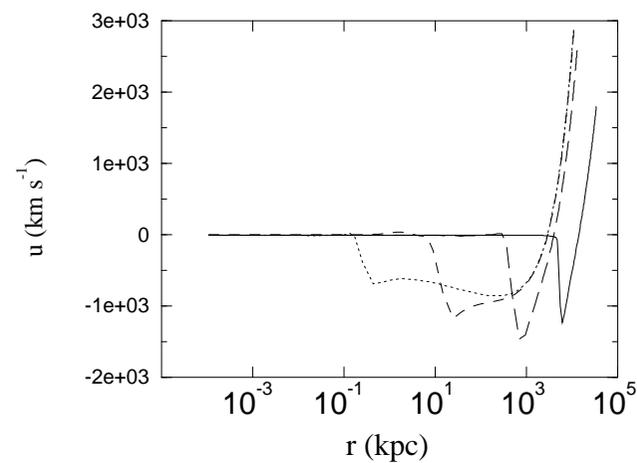
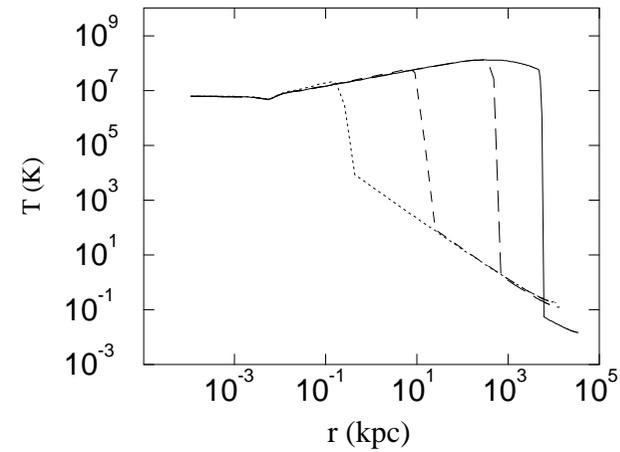
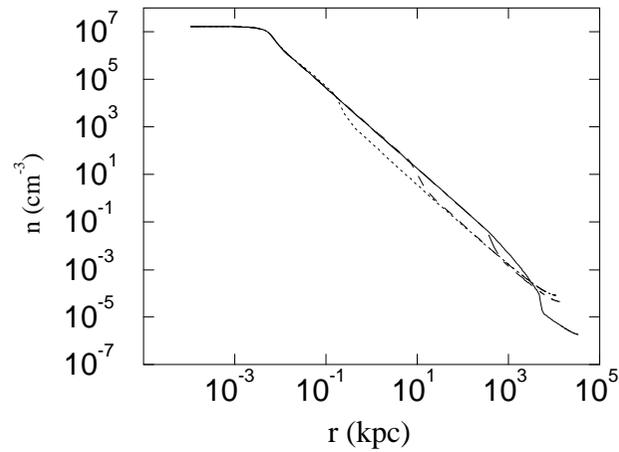
Net cooling rate (erg cm^3)



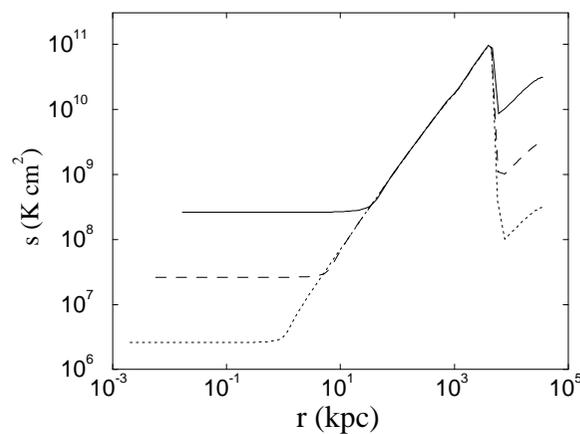
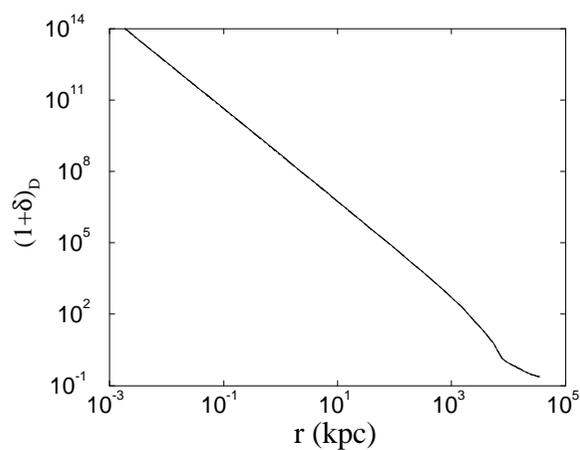
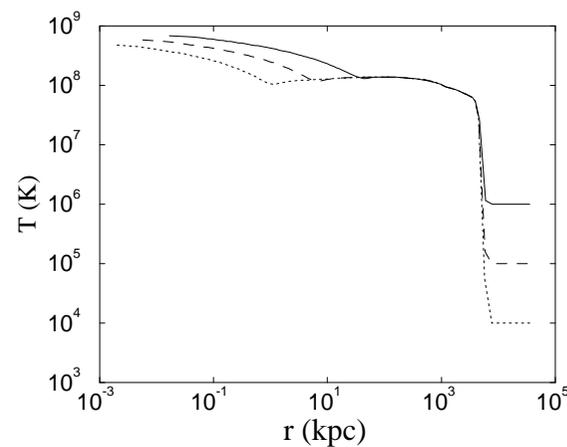
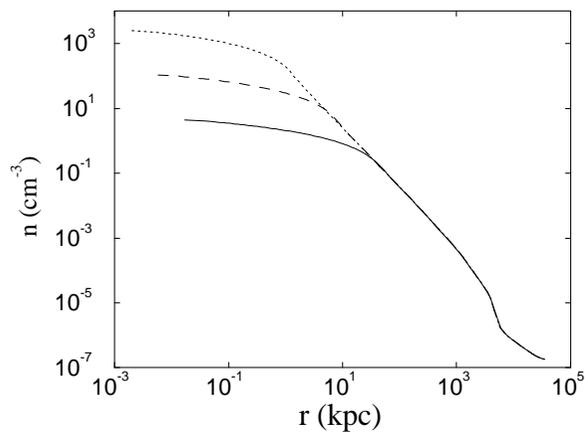
“Pancake” formation



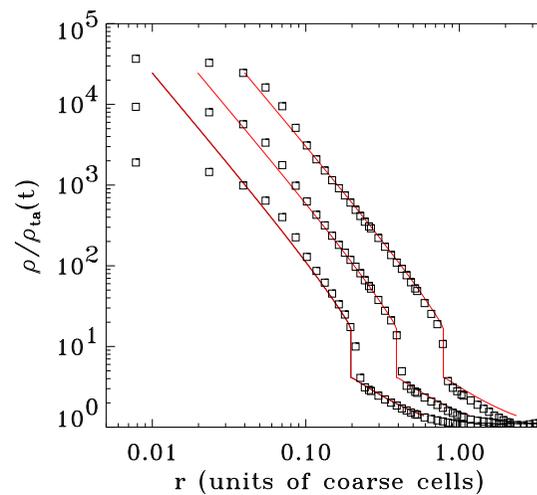
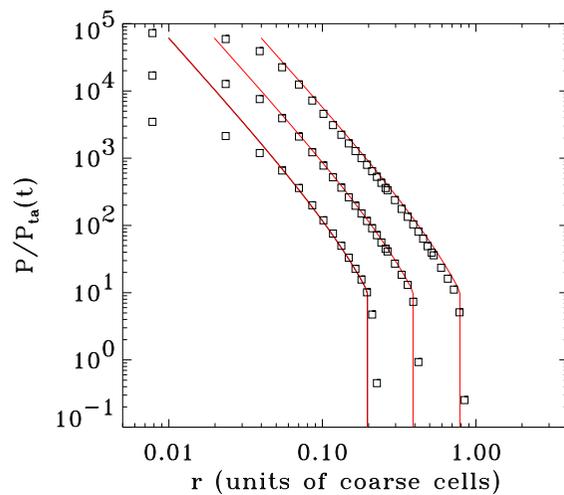
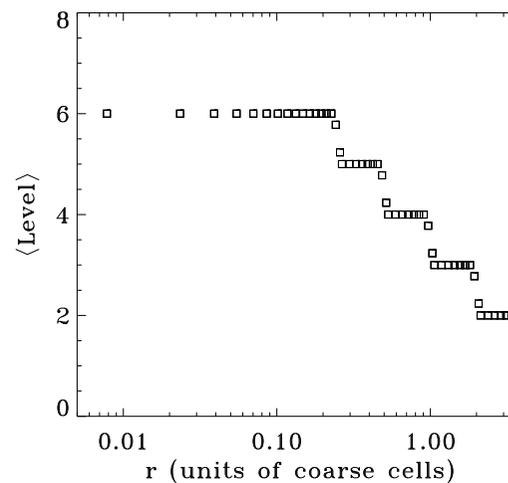
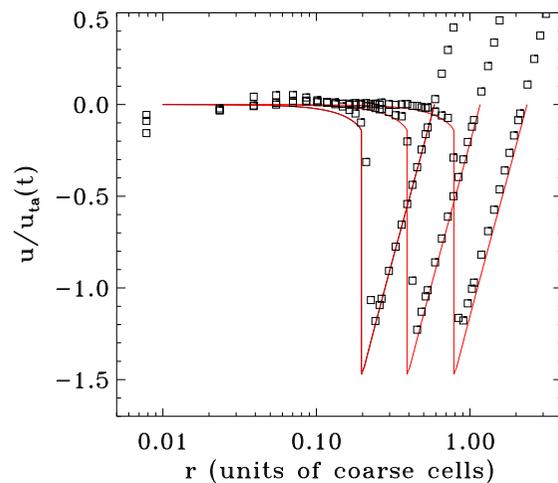
Modèle sphérique : perturbation finie



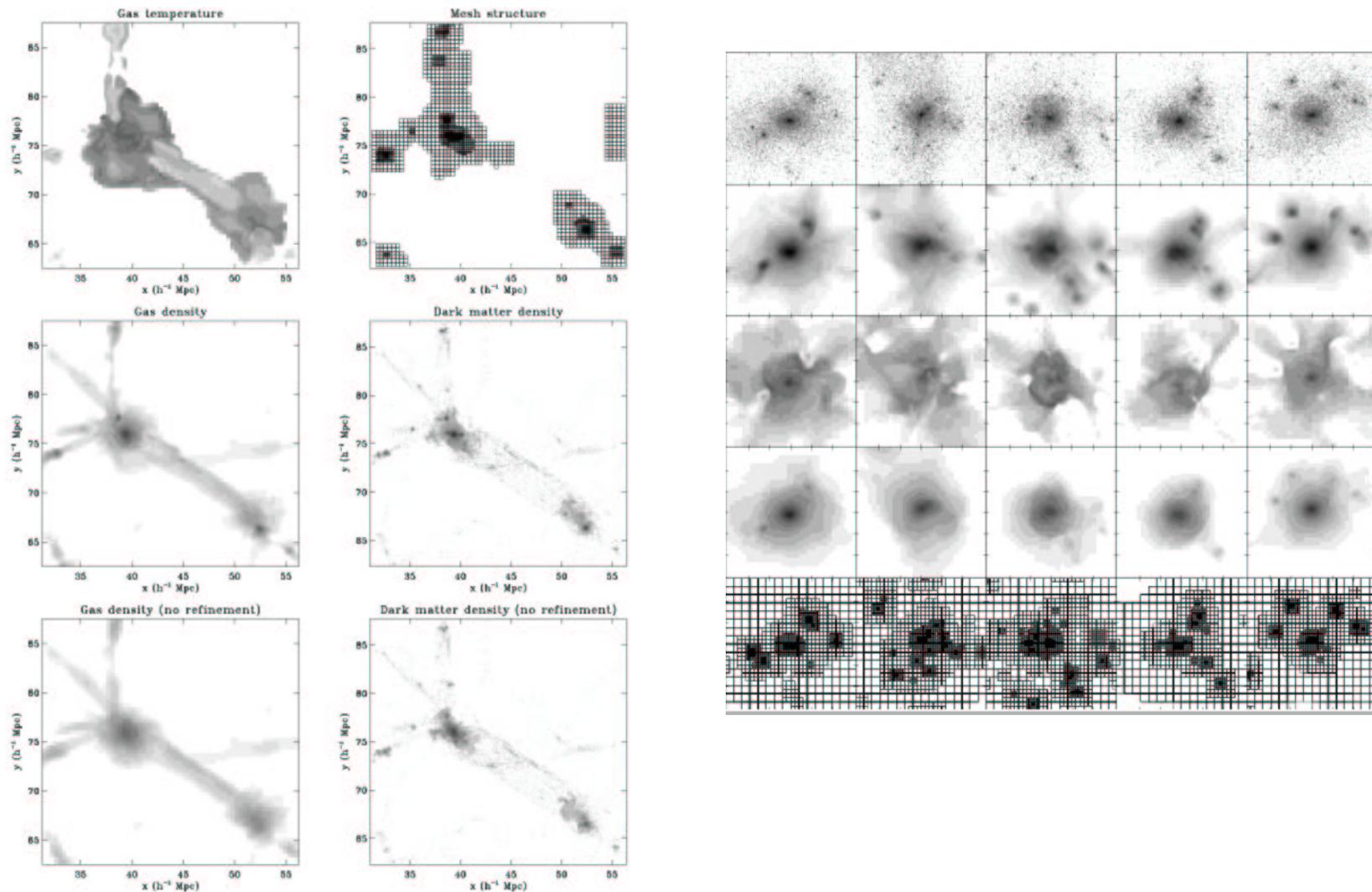
Modèle sphérique : perturbation finie et isentrope élevée



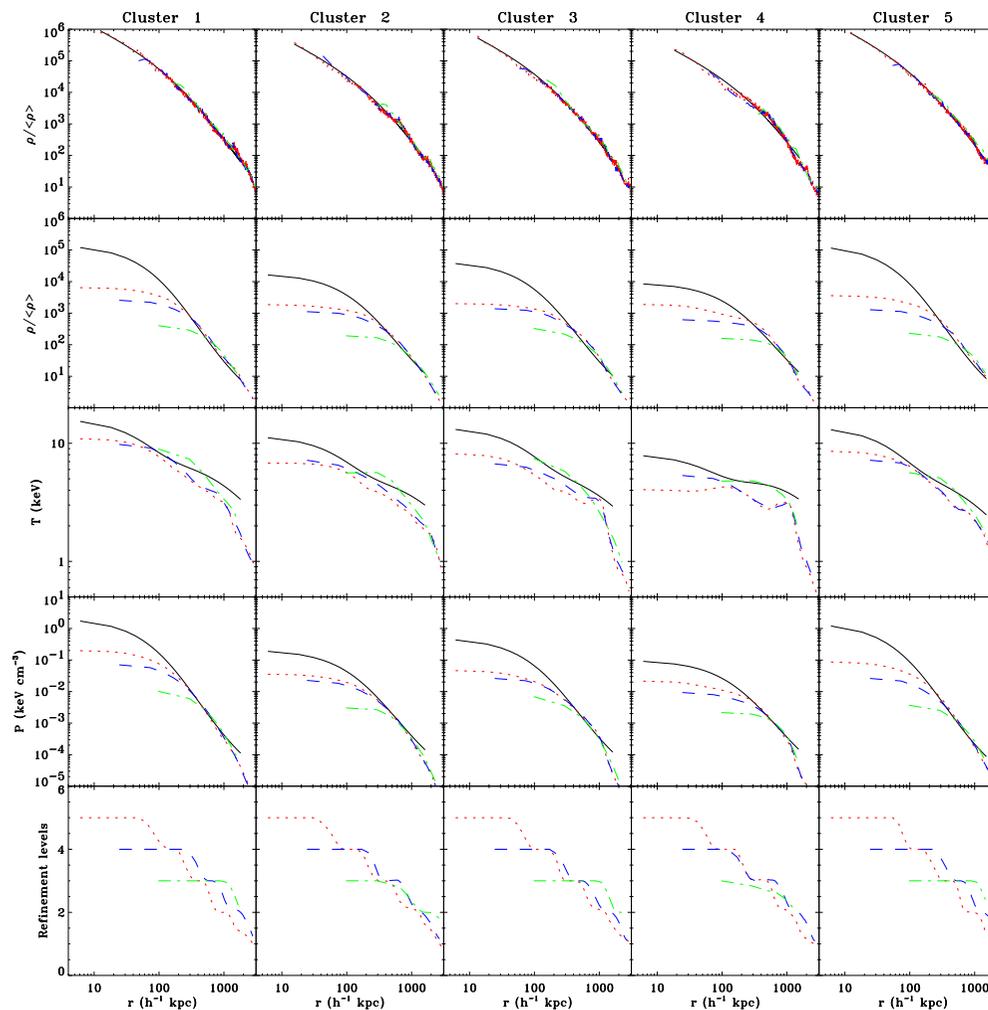
Modèle sphérique : perturbation autosemblable



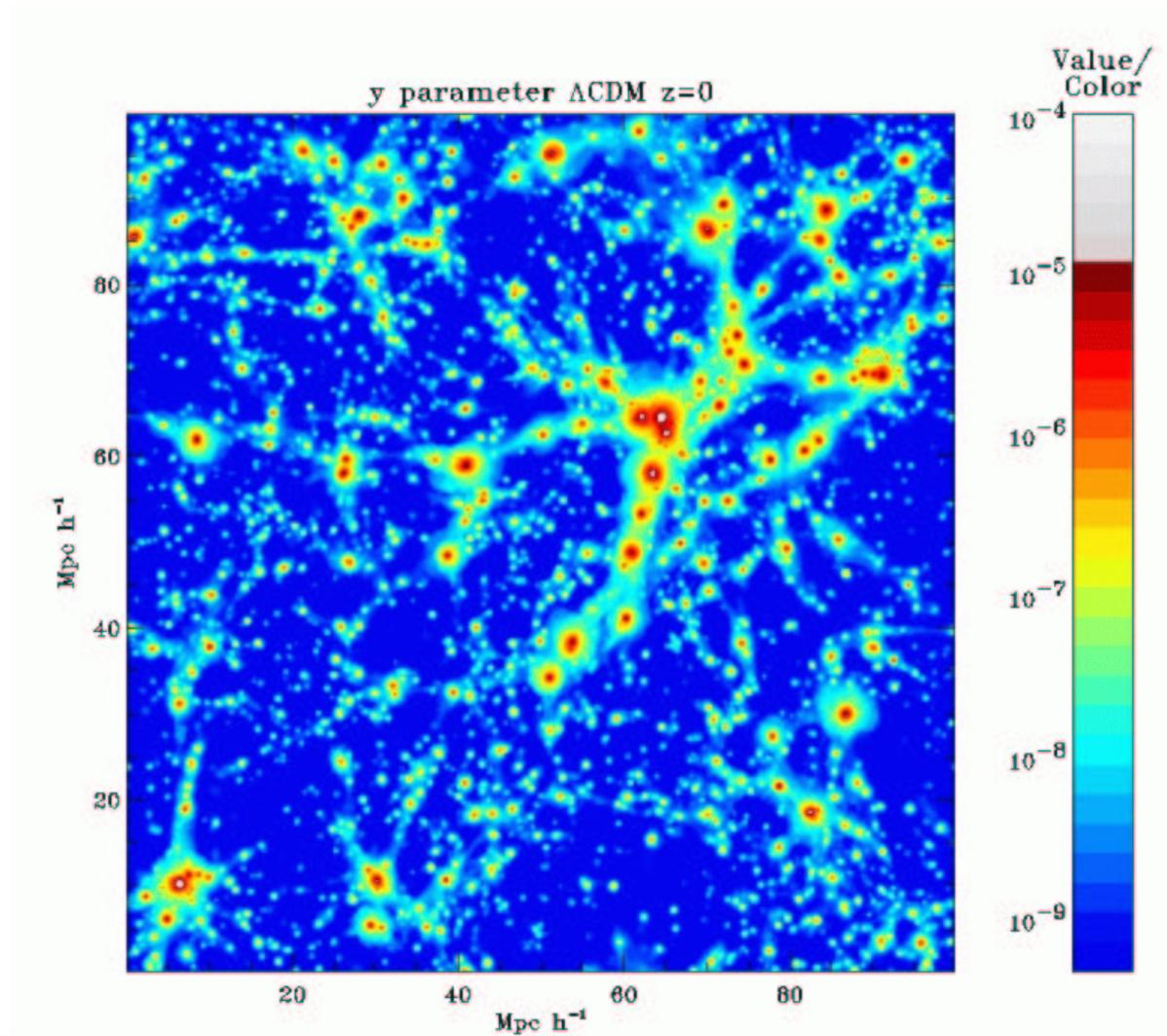
Dynamique des chocs : une géométrie complexe



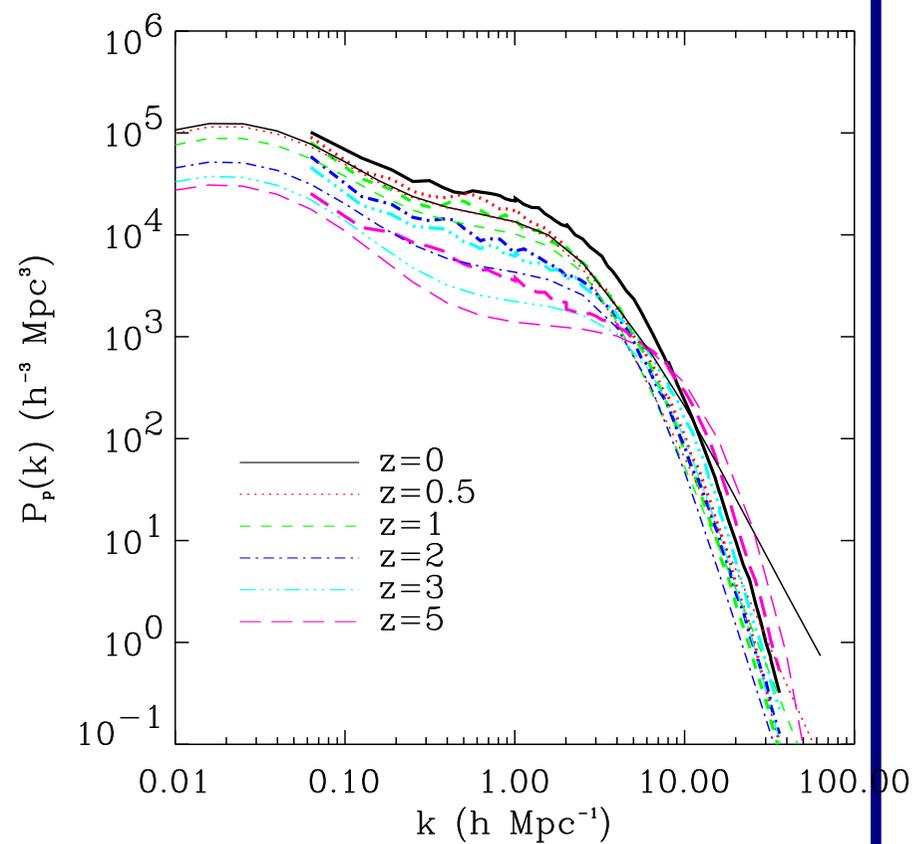
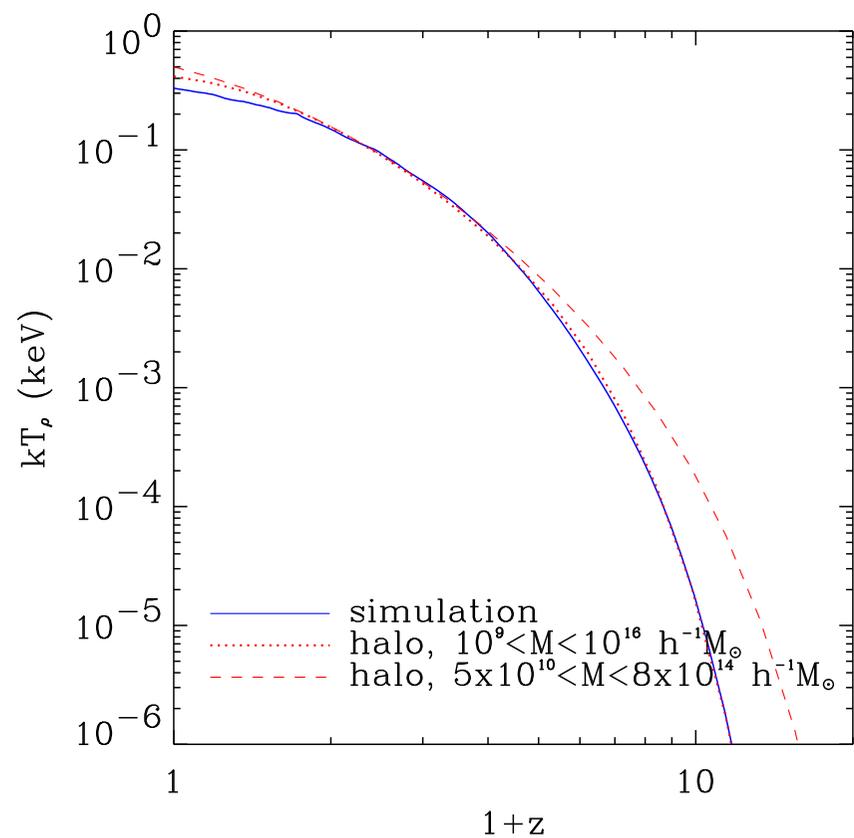
Profils hydrostatiques



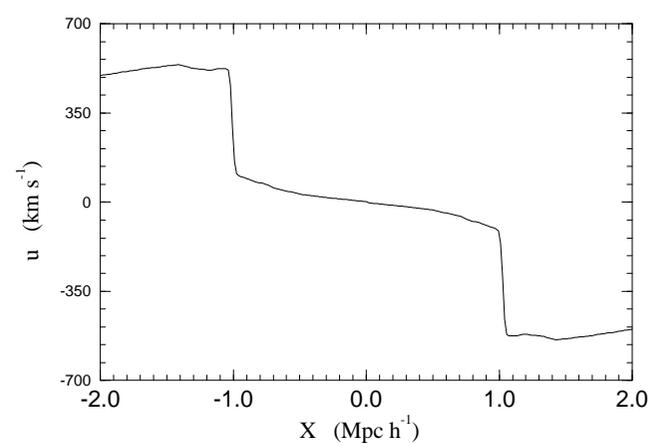
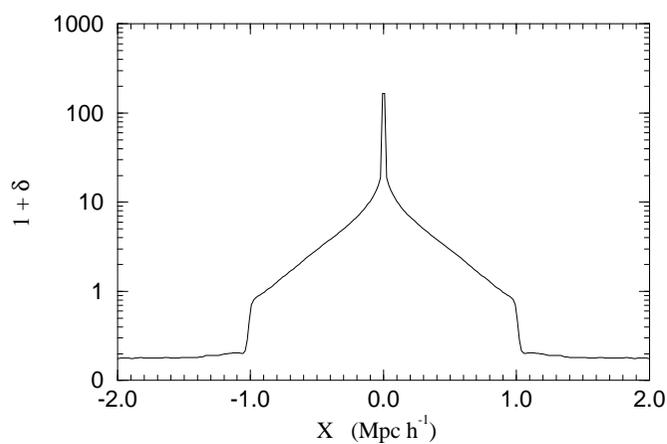
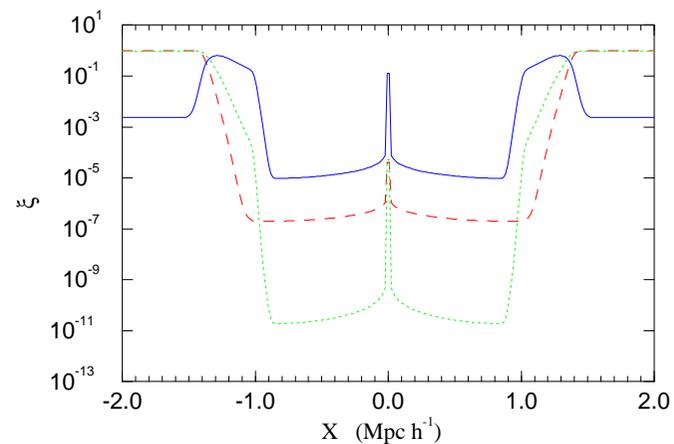
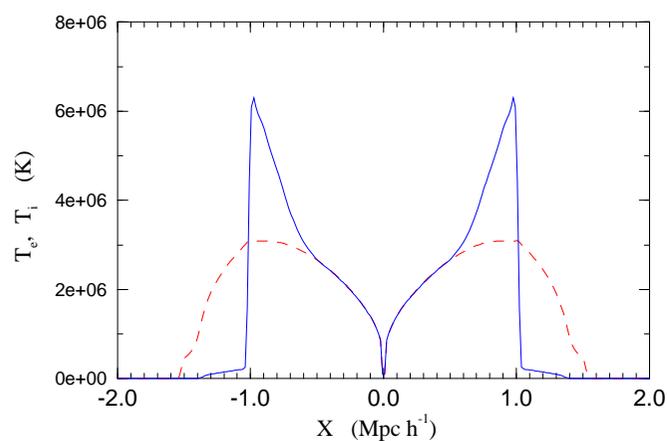
Fluctuations thermique du fond à 3K par effet SZ



Modèle des halos et fluctuations SZ



Prise en compte des effets hors-équilibre : pancakes



Effets hors-équilibre : amas de galaxies

