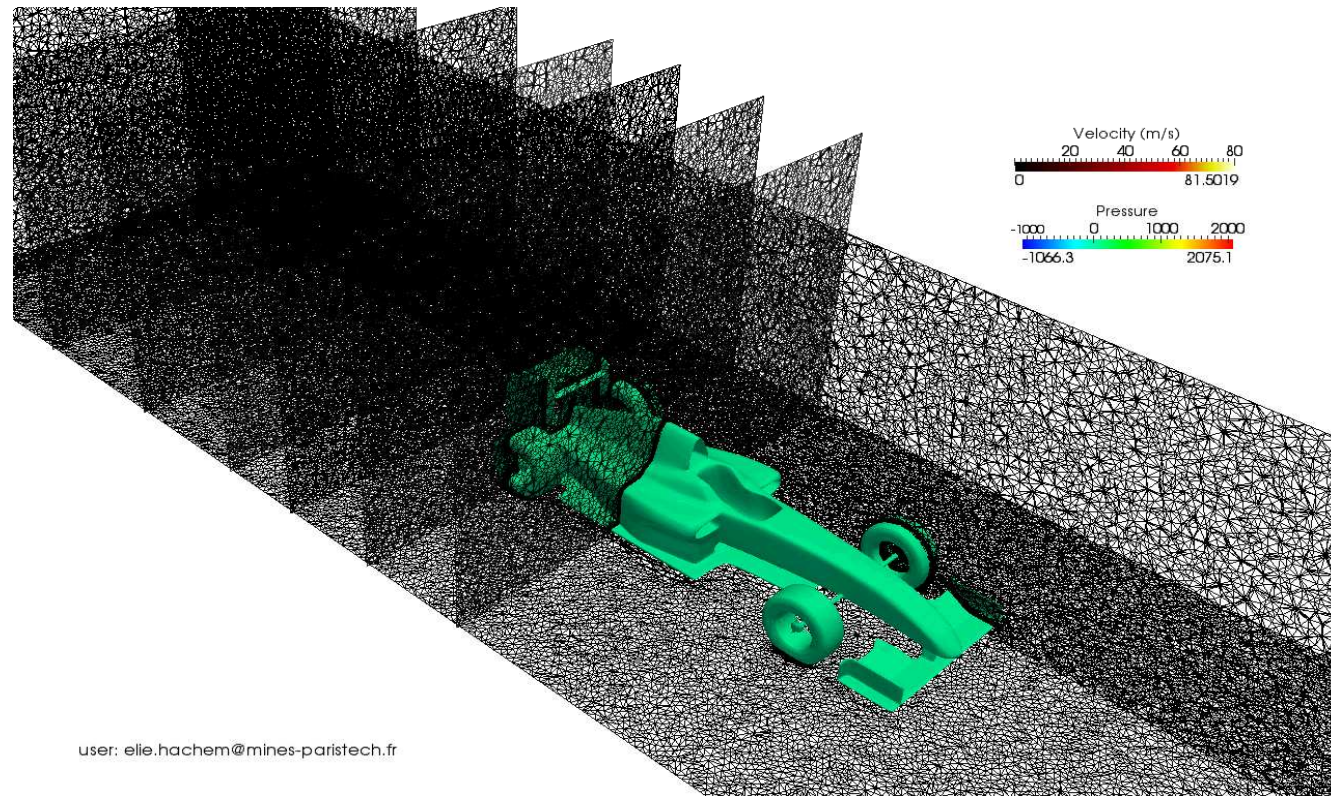
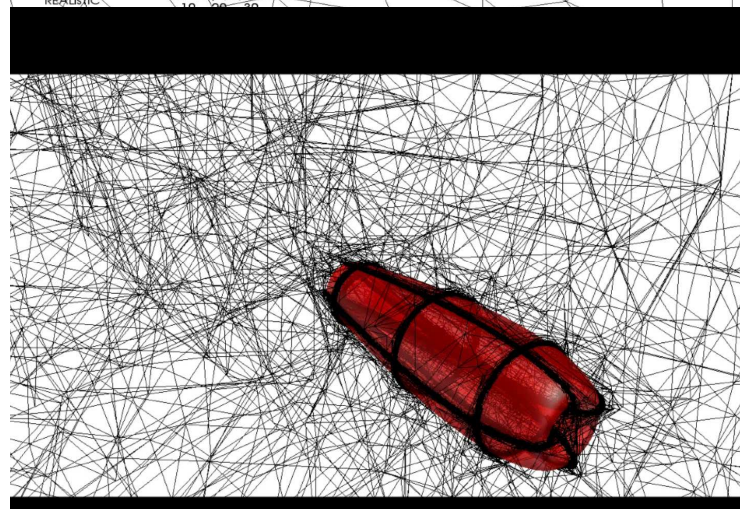
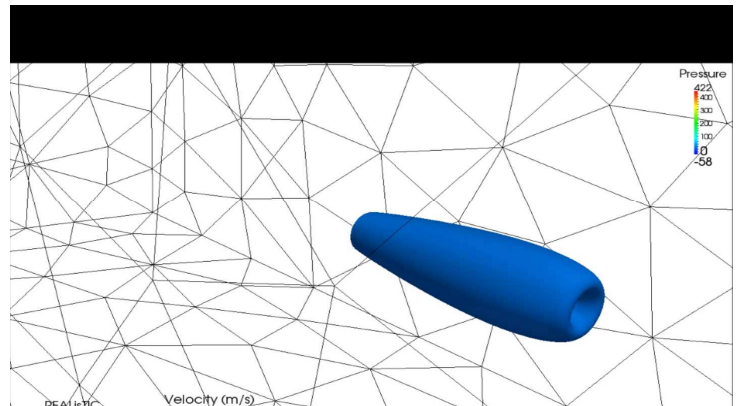
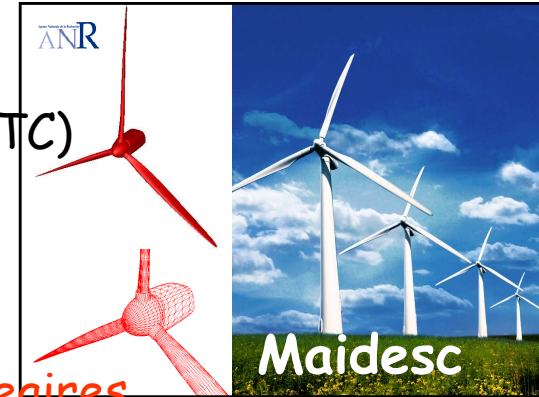


Ce qu'on sait faire, et ce qui reste à faire...

- 1- Maillage adaptatif dynamique (metric edge based + Maillageur MTC)
- 2- Solveur VMS (iLES) incompressible
- 3- Immersion de volume et levelset

- 1- métrique espace temps pour l'instantané et couche limite
- 2- extension VMS vers des petites échelles dynamiques et nonlinéaires
- 3- Immersion de plusieurs objets fixes ou mobiles



rapport bibliographique: 10 janvier 2014

Couplage maillage + solveur:

T. Coupez and E. Hachem, Solution of High-Reynolds Incompressible Flow with Stabilized Finite Element and Adaptive Anisotropic Meshing, *Computer Methods in Applied Mechanics and Engineering*, Vol. 267, pp. 65-85, 2013

Immersion et Interaction Fluide-Structure:

E. Hachem, S. Feghali, R. Codina and T. Coupez, Immersed Stress Method for Fluid Structure Interaction, *International Journal for Numerical Methods in Engineering*, Vol. 94, (9), pp. 805 - 825, 2013

E. Hachem, S. Feghali, R. Codina and T. Coupez, Anisotropic Adaptive Meshing and Monolithic Variational Multiscale Method for Fluid-Structure Interaction, *Computer and Structures*, Vol. 122, pp. 88 - 100, 2013

Metric Espace Temps:

T. Coupez, G. Jannoun, N. Nassif, H.C. Nguyen, H. Dignonnet, E. Hachem, Adaptive Time-step with Anisotropic Meshing for Incompressible Flows, *Journal of Computational Physics*, Vol. 241, pp. 195 - 211, 2013

Solveur NAVIER-STOKES VMS:

E. Hachem, B. Rivaux, T. Kloczko, H. Dignonnet, T. Coupez, Stabilized finite element method for incompressible flows with high Reynolds number, *Journal of Computational Physics*, Vol. 229 (23), 8643-8665, 2010

Métrie « edge based »

T. Coupez, Metric construction by length distribution tensor and edge based error for anisotropic adaptive meshing, *Journal of Computational Physics* 230 2391-2405, 2010