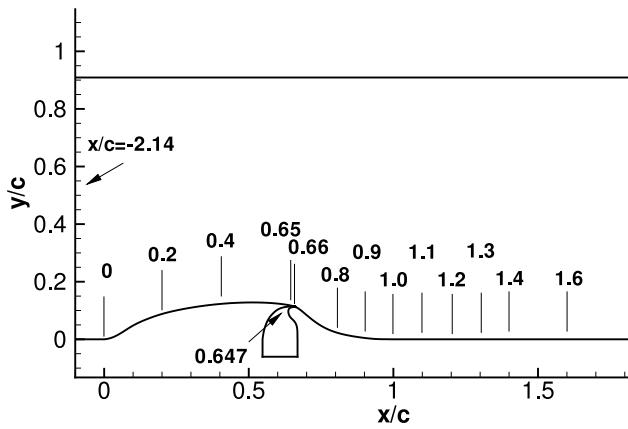
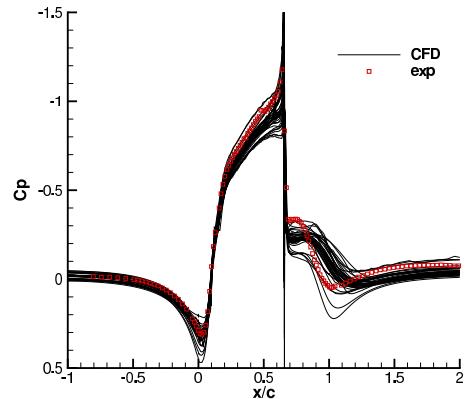


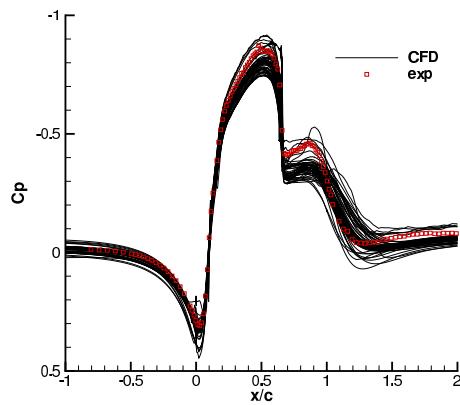
### Results from CFDVAL2004 Case 3



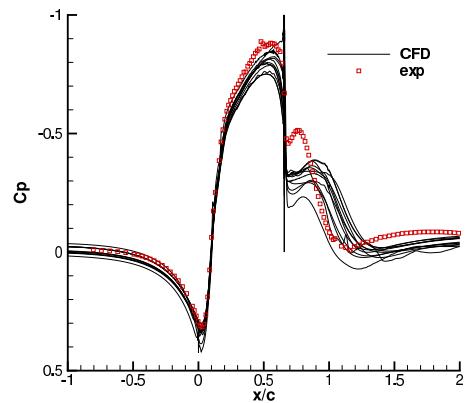
Cp plots for steady suction, all results:



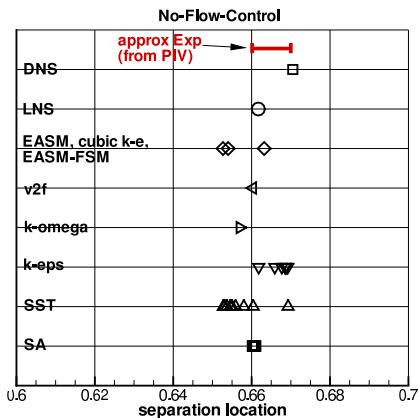
Cp plots for no-flow-control, all results:



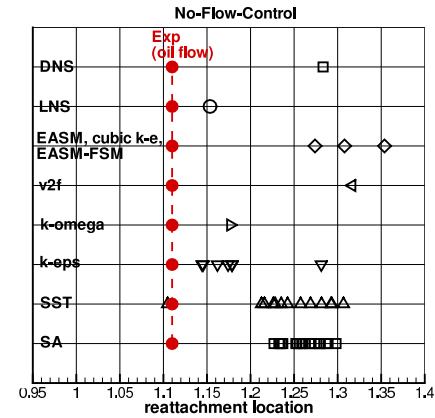
Cp plots for oscillatory control, all results:



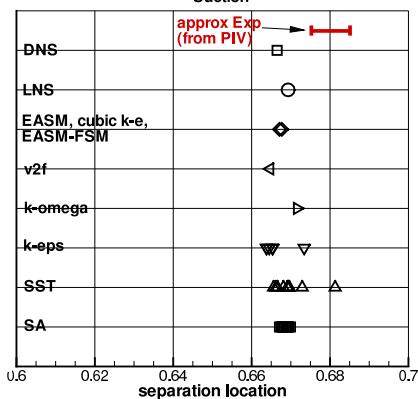
Location of separation:



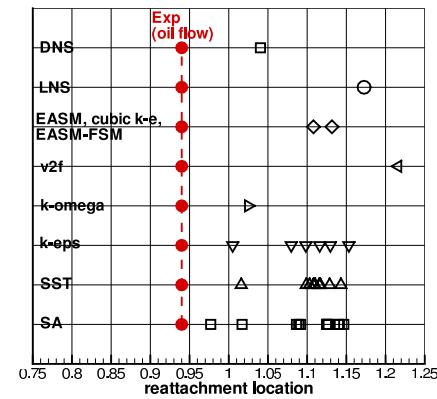
Location of reattachment:



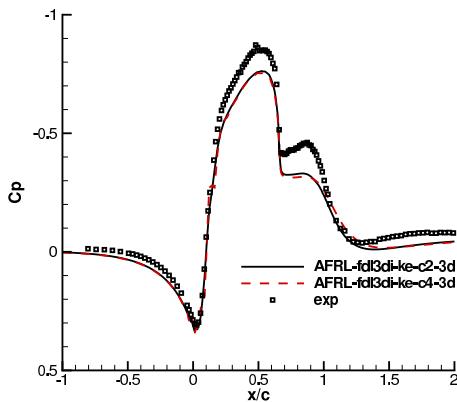
Suction



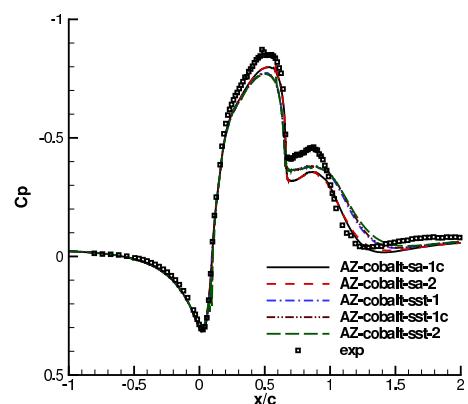
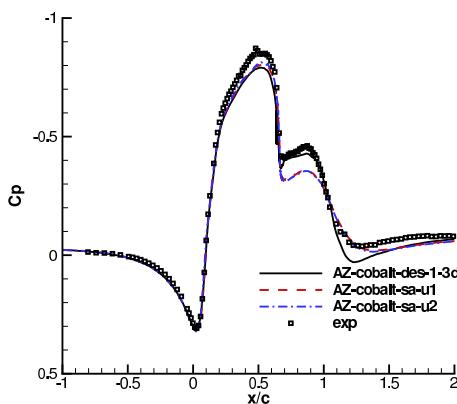
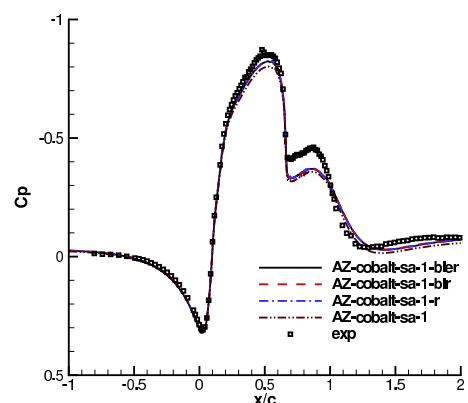
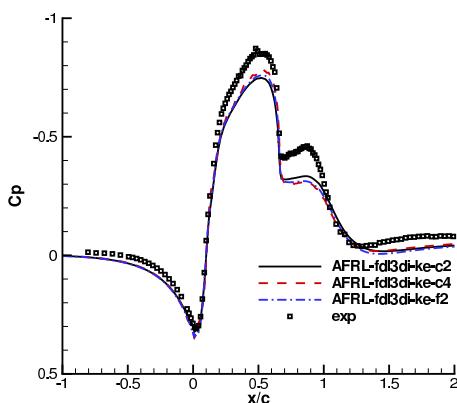
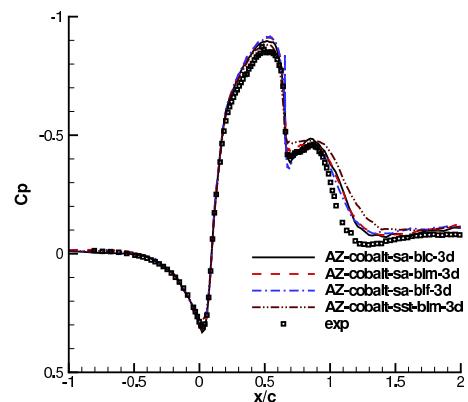
Suction



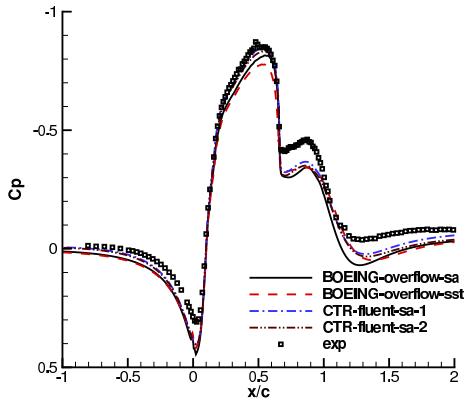
Cp plots for no-flow-control:



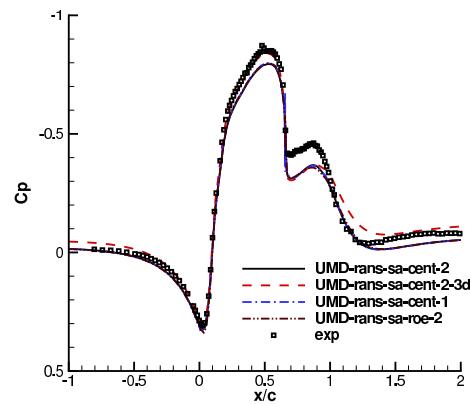
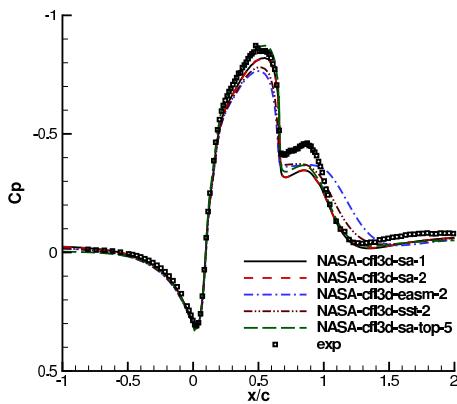
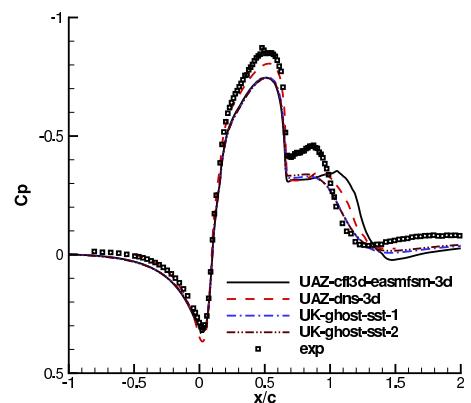
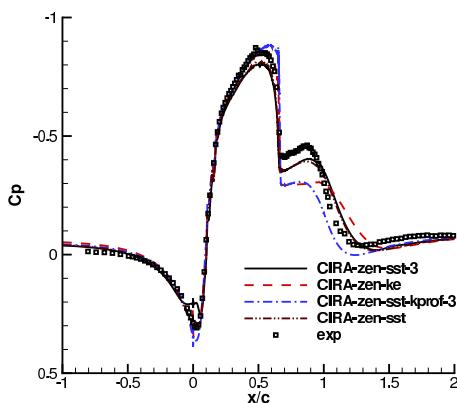
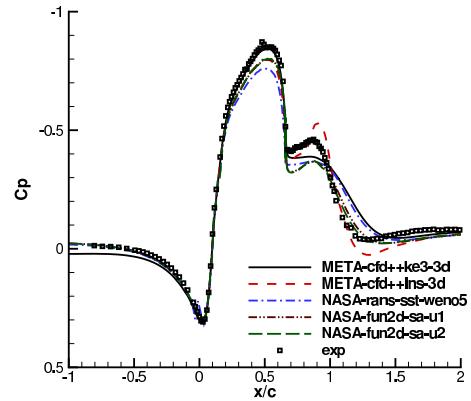
Cp plots for no-flow-control (cont'd):



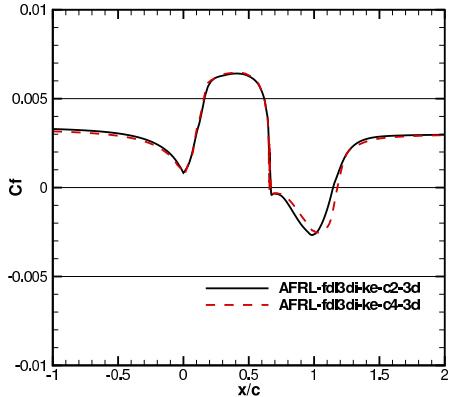
Cp plots for no-flow-control (cont'd):



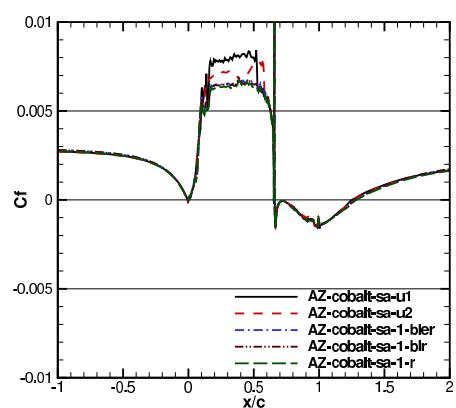
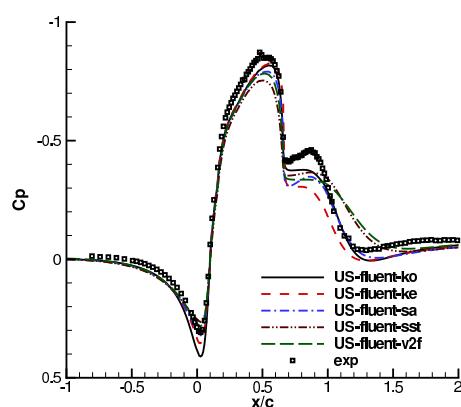
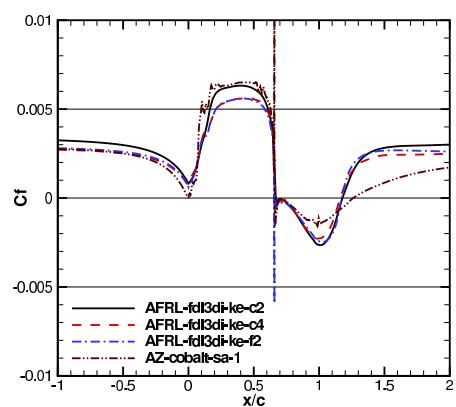
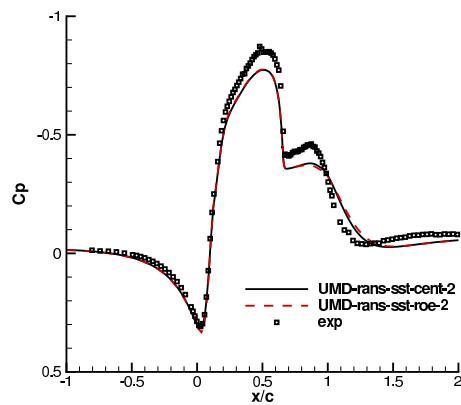
Cp plots for no-flow-control (cont'd):



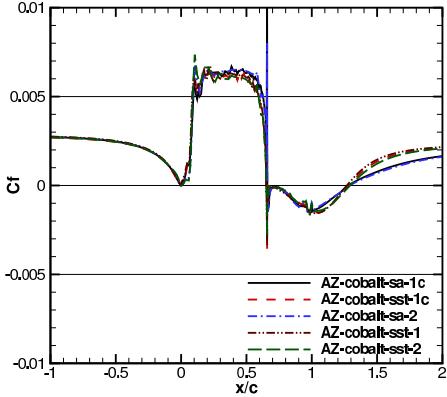
Cf plots for no-flow-control:



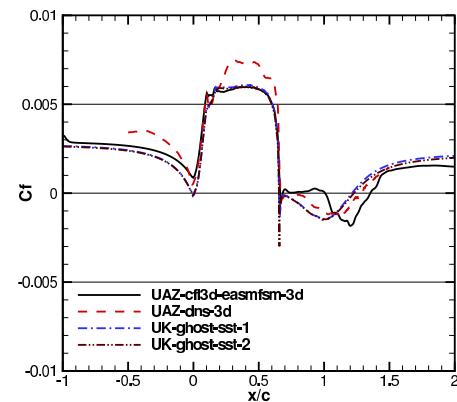
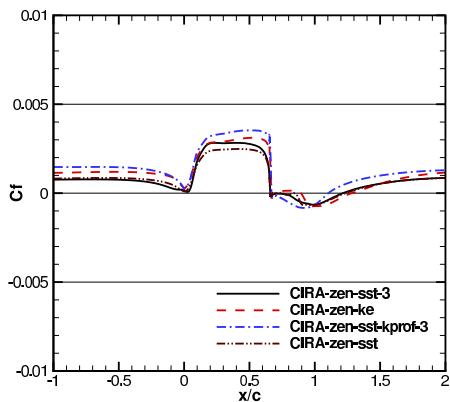
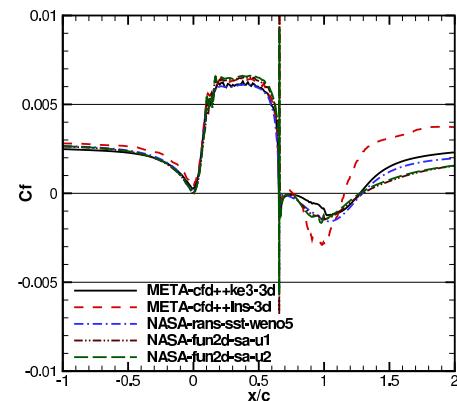
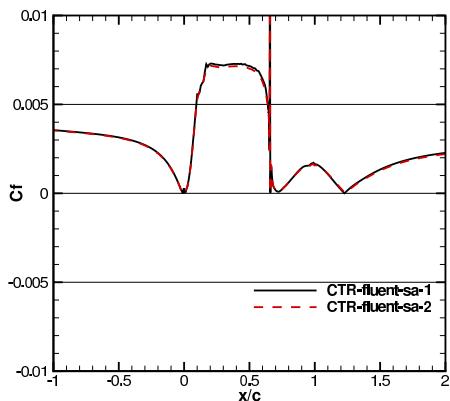
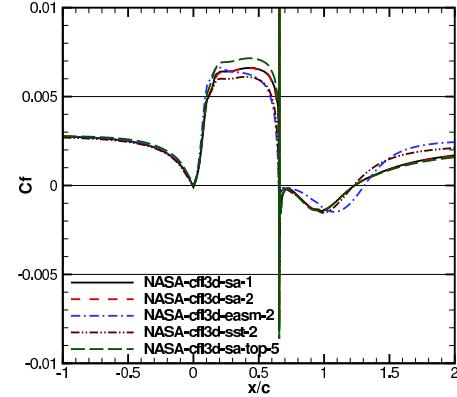
Cp plots for no-flow-control (cont'd):



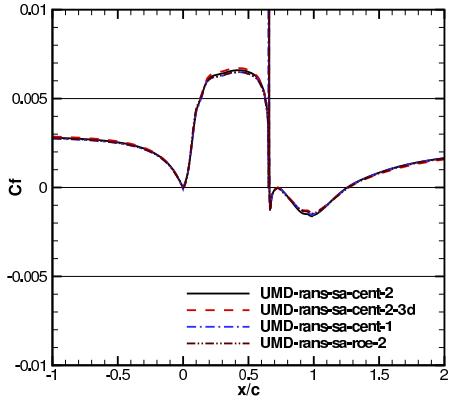
Cf plots for no-flow-control (cont'd):



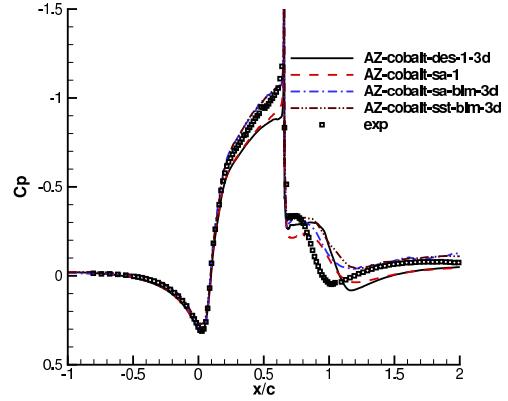
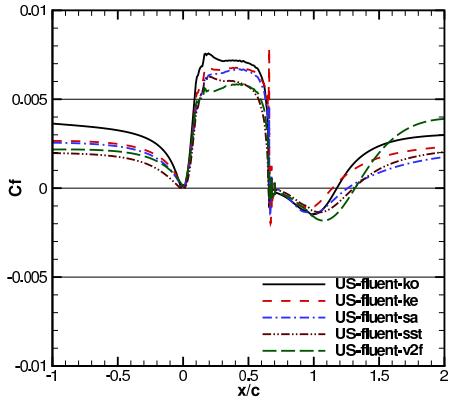
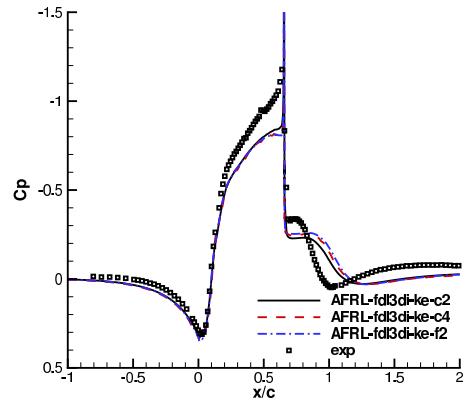
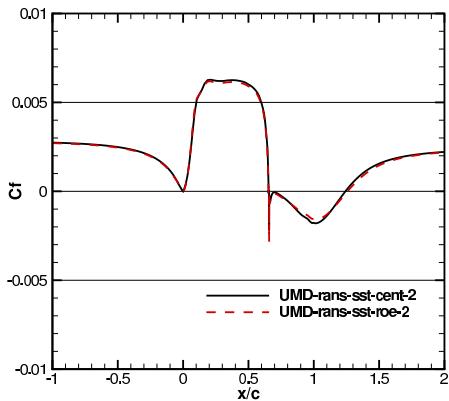
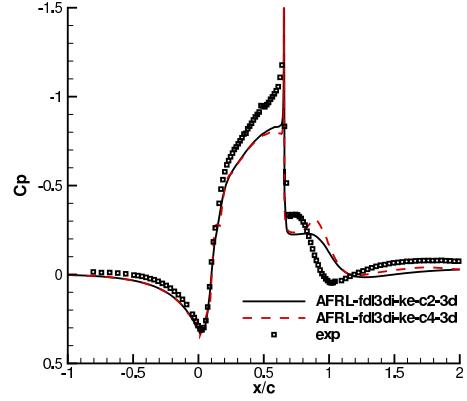
Cf plots for no-flow-control (cont'd):



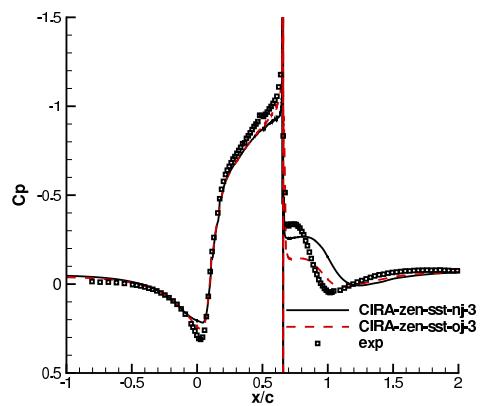
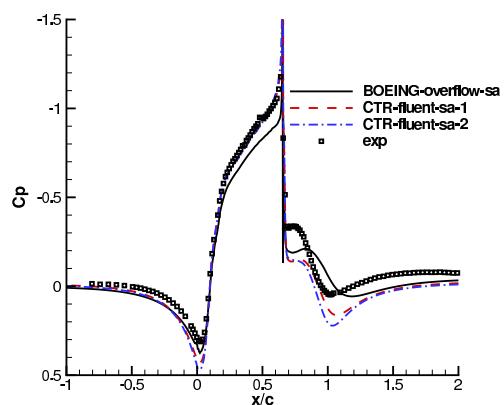
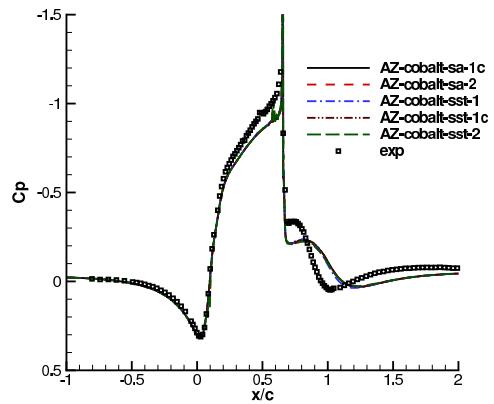
Cf plots for no-flow-control (cont'd):



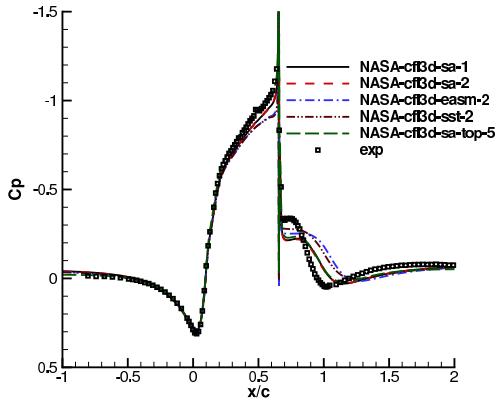
Cp plots for steady suction:



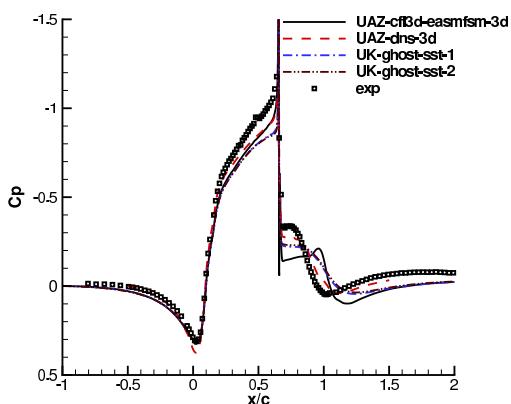
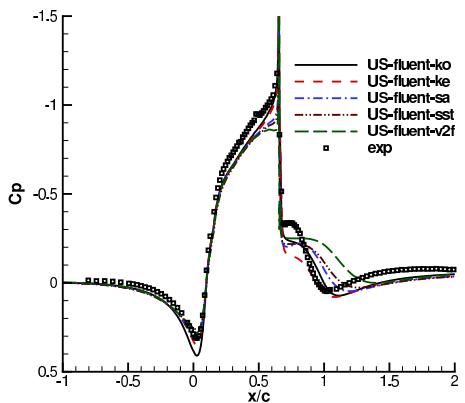
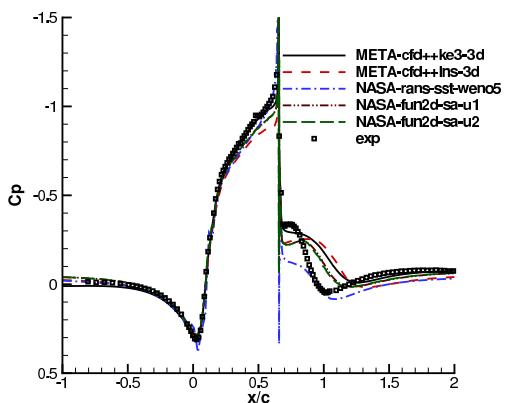
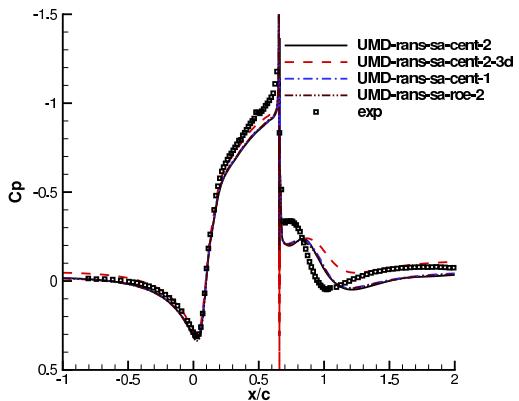
Cp plots for steady suction (cont'd):



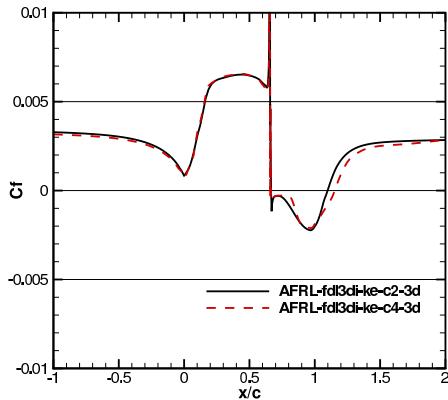
Cp plots for steady suction (cont'd):



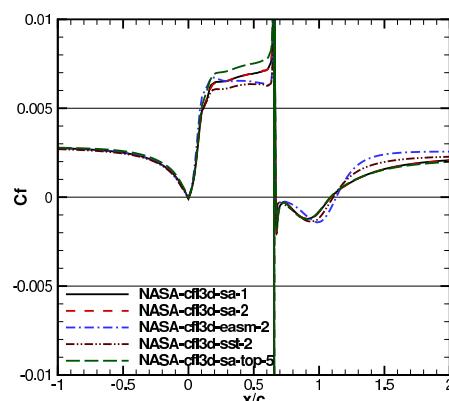
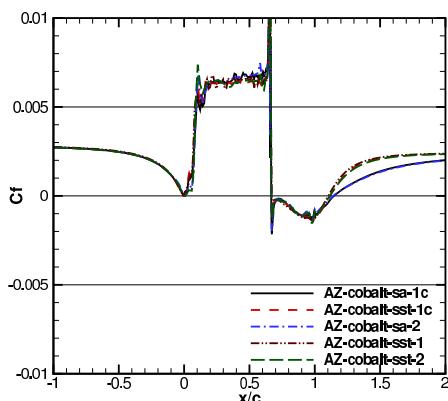
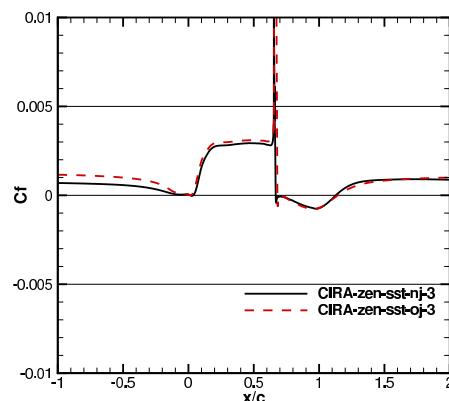
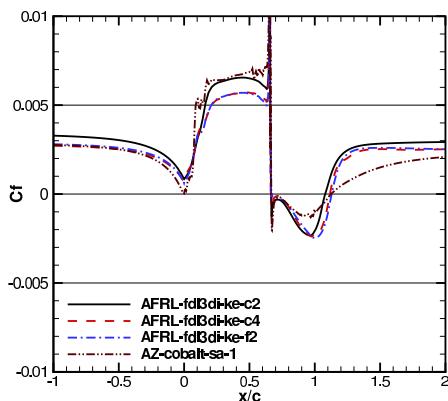
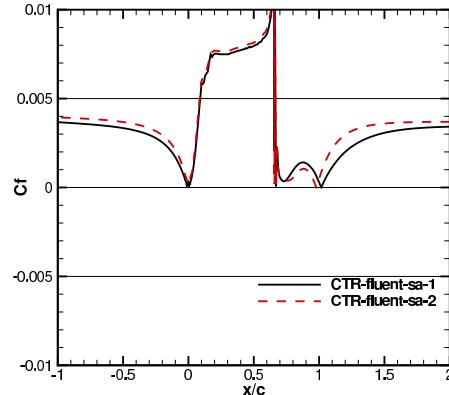
Cp plots for steady suction (cont'd):



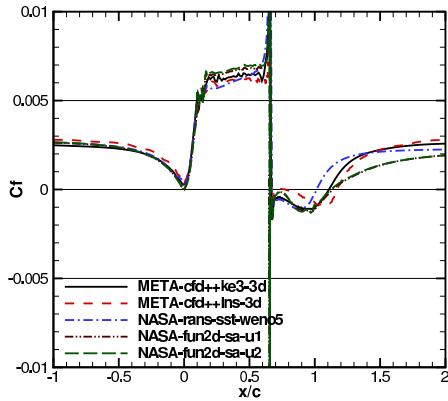
Cf plots for steady suction:



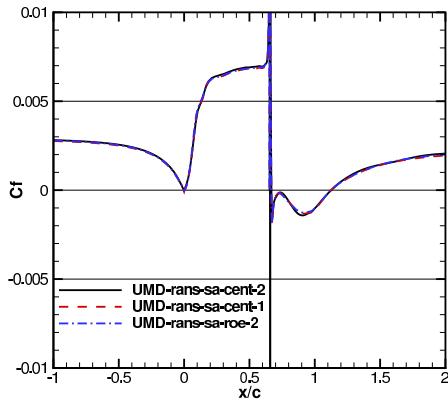
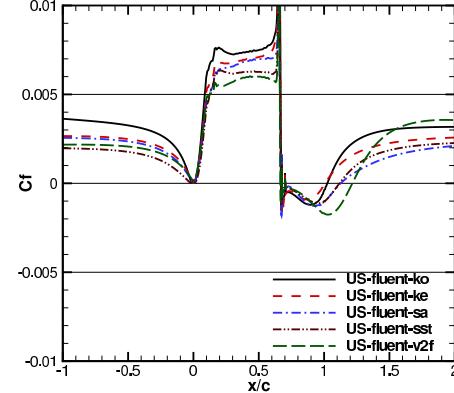
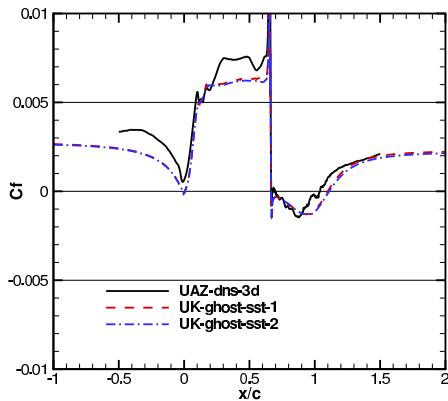
Cf plots for steady suction (cont'd):



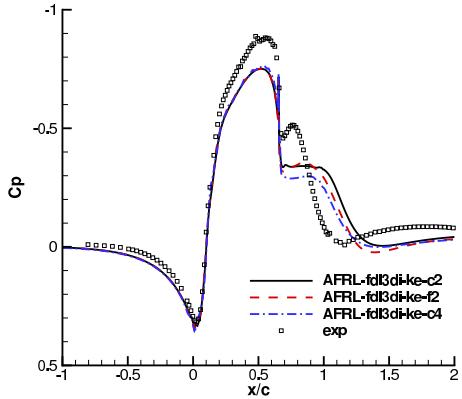
Cf plots for steady suction (cont'd):



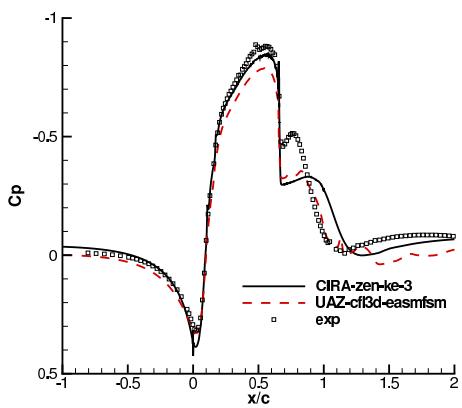
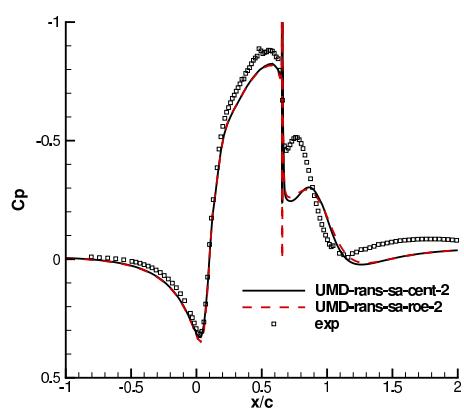
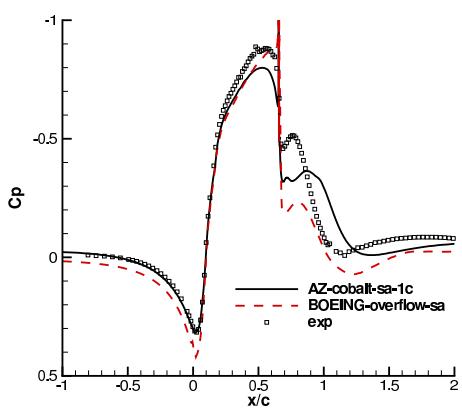
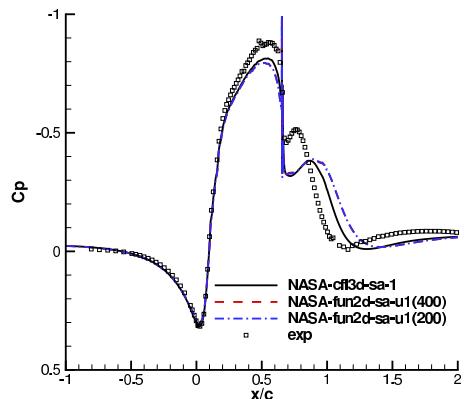
Cf plots for steady suction (cont'd):



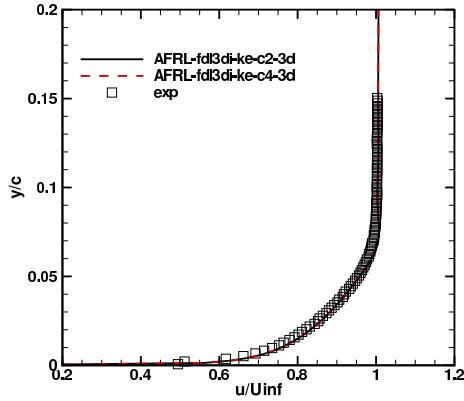
Cp plots for oscillatory control:



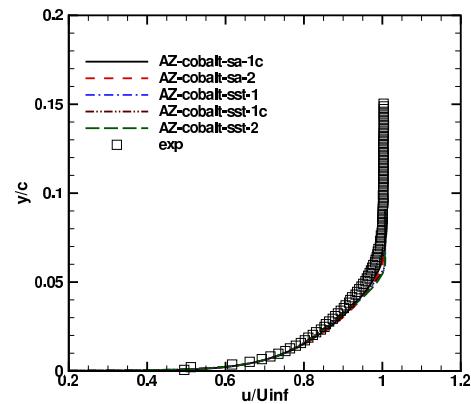
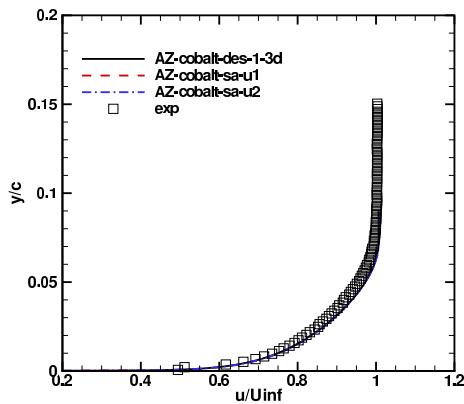
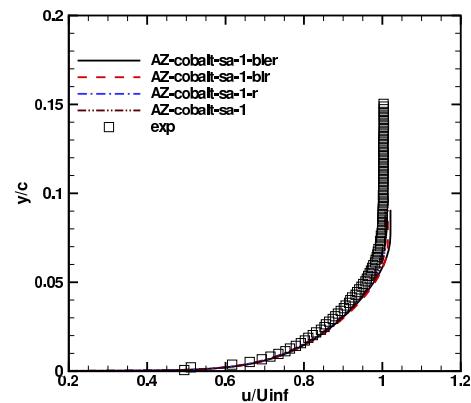
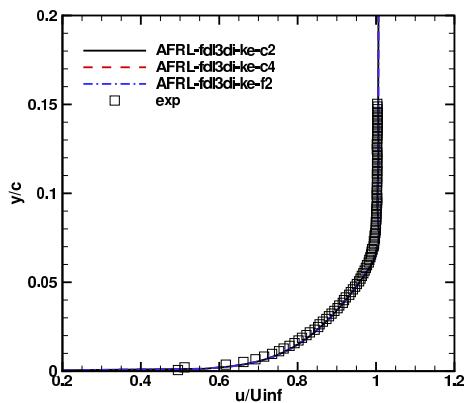
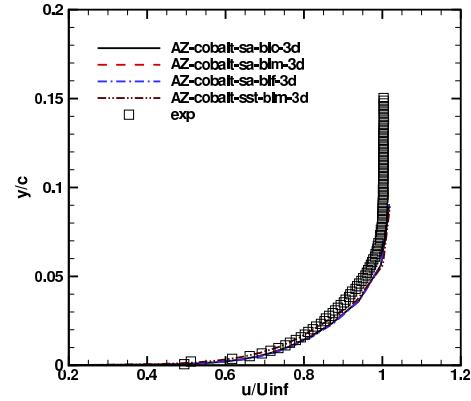
Cp plots for oscillatory control (cont'd):



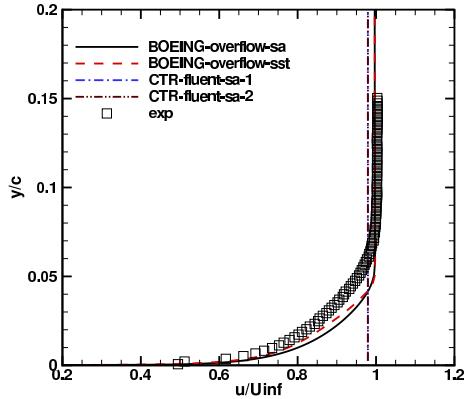
U-velocity profiles at  $x/c = -2.14$ :



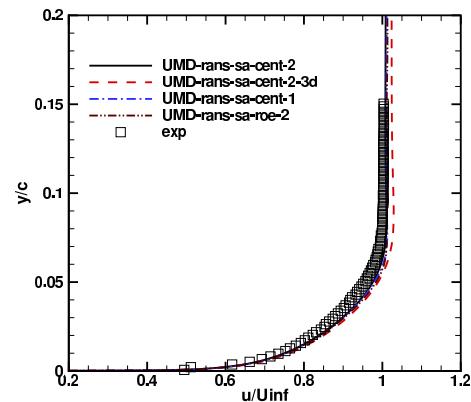
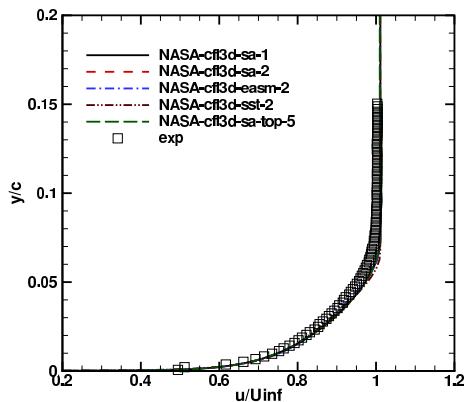
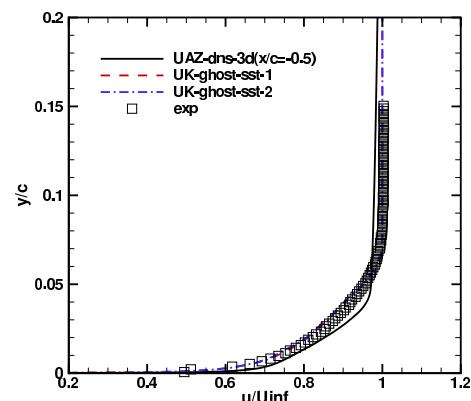
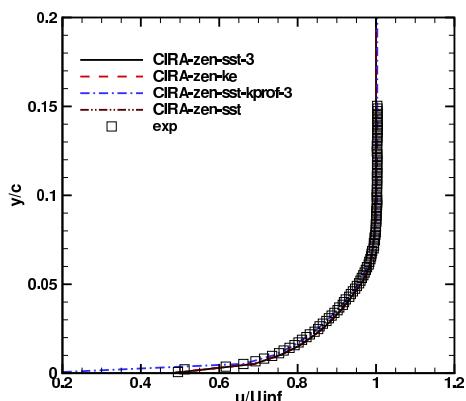
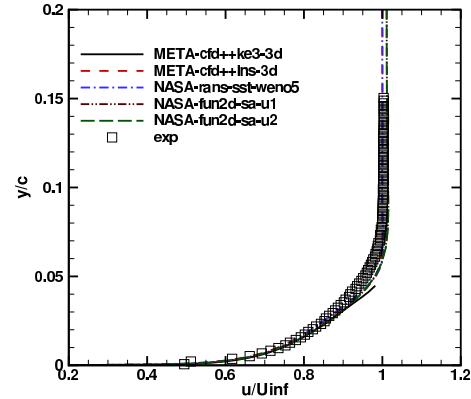
U-velocity profiles at  $x/c = -2.14$  (cont'd):



U-velocity profiles at  $x/c=-2.14$  (cont'd):

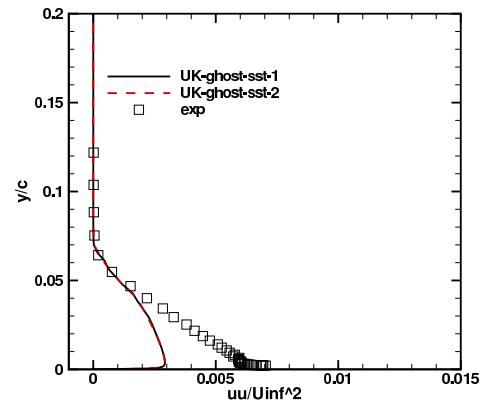
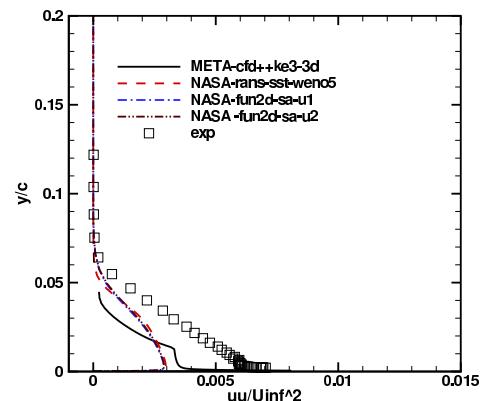
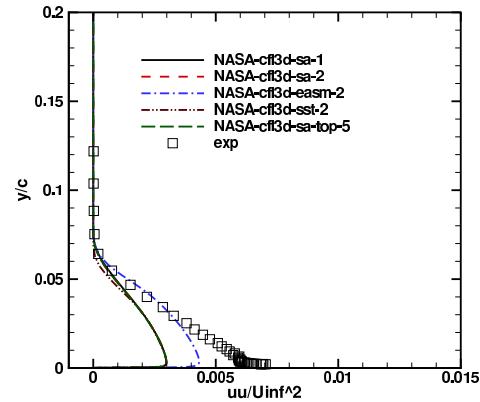
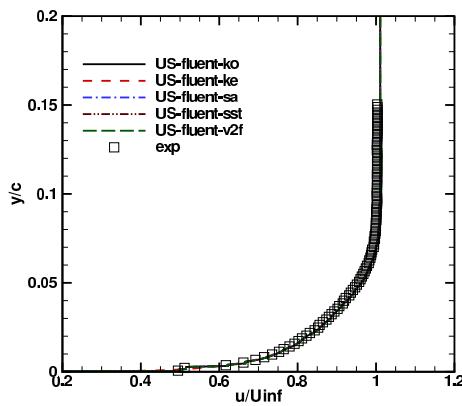
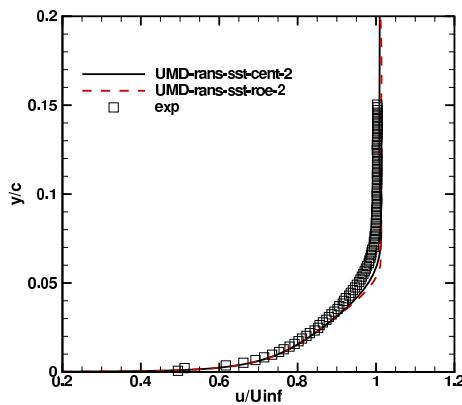


U-velocity profiles at  $x/c=-2.14$  (cont'd):

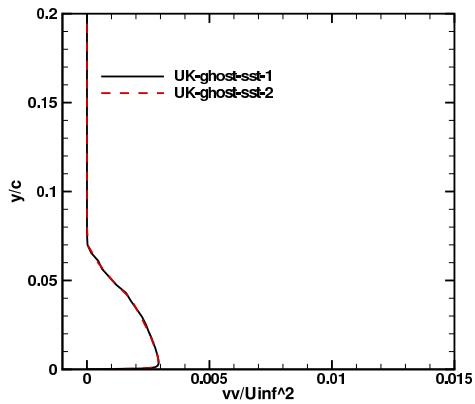
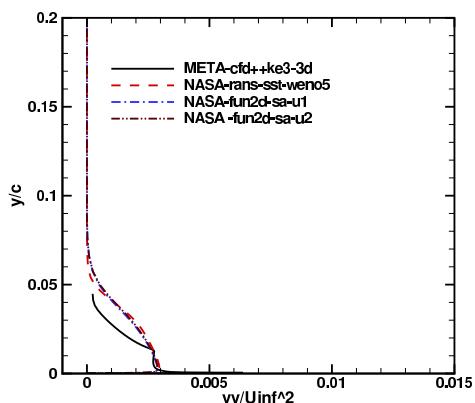
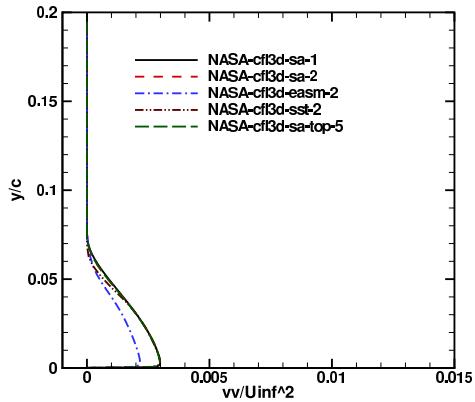


u'u' turbulent stress profiles  
at  $x/c = -2.14$ :

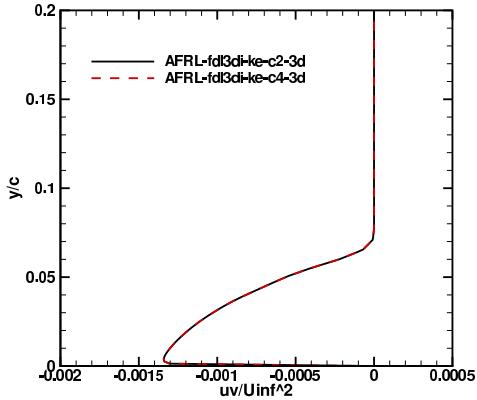
U-velocity profiles at  $x/c = -2.14$  (cont'd):



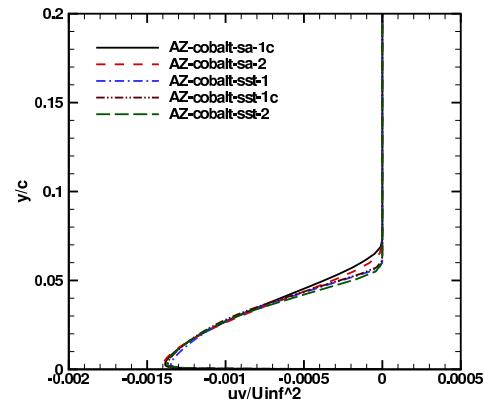
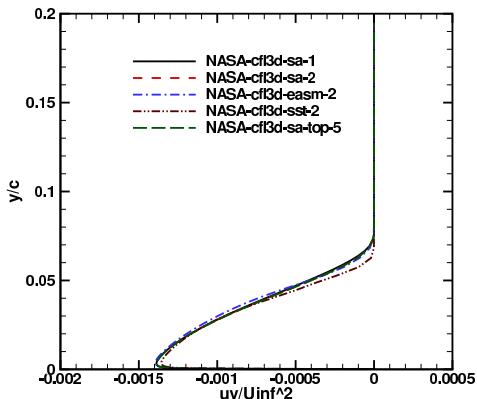
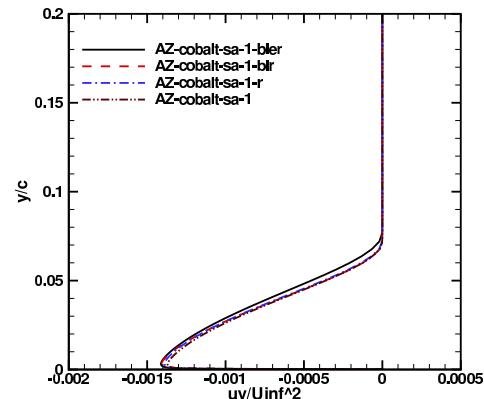
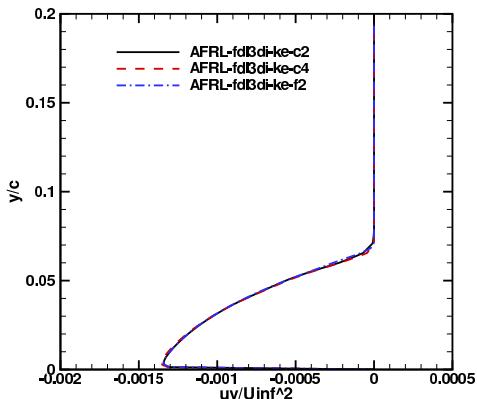
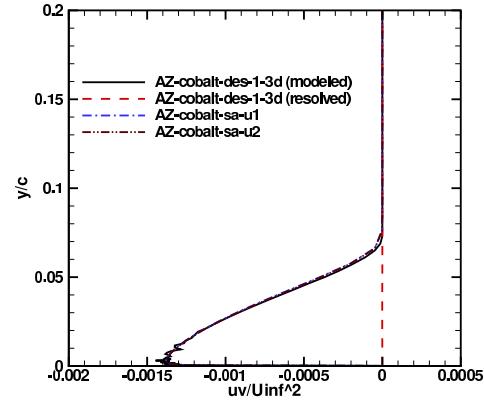
$v'v'$  turbulent stress profiles  
at  $x/c = -2.14$ :



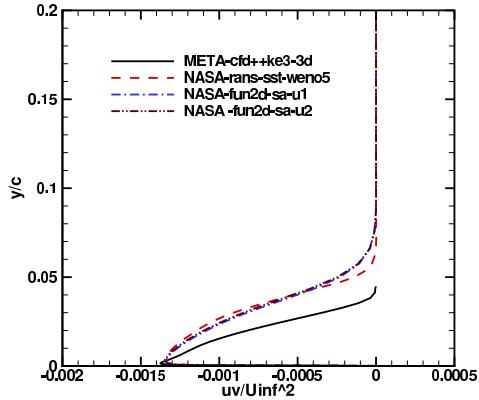
u'v' turbulent stress profiles  
at  $x/c = -2.14$ :



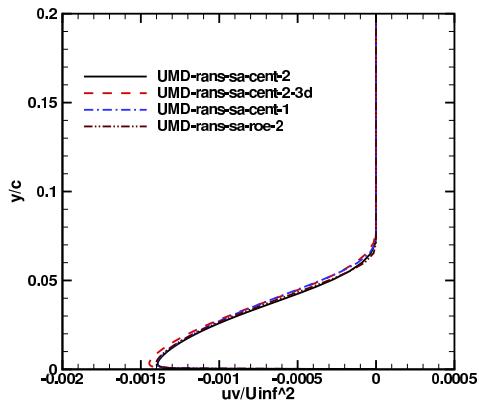
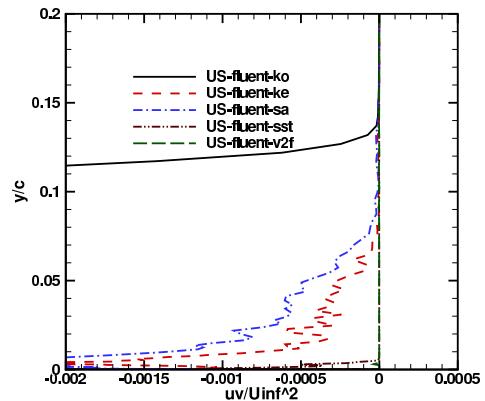
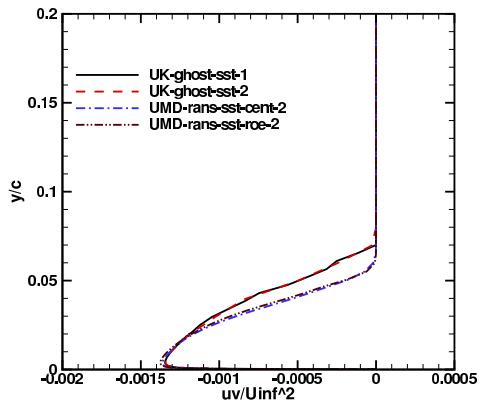
u'v' turbulent stress profiles  
at  $x/c = -2.14$  (cont'd):



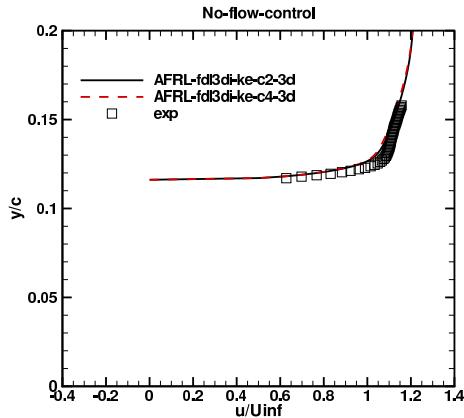
u'v' turbulent stress profiles  
at  $x/c = -2.14$  (cont'd):



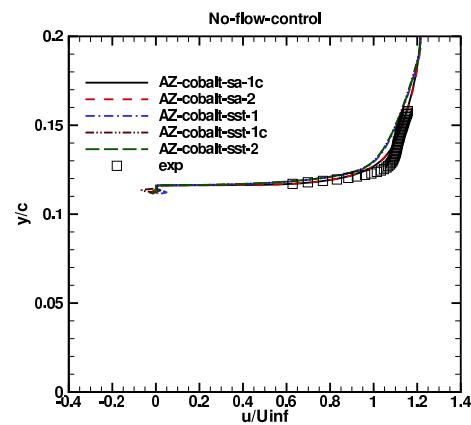
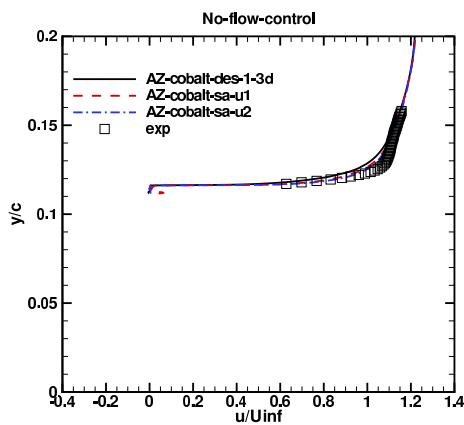
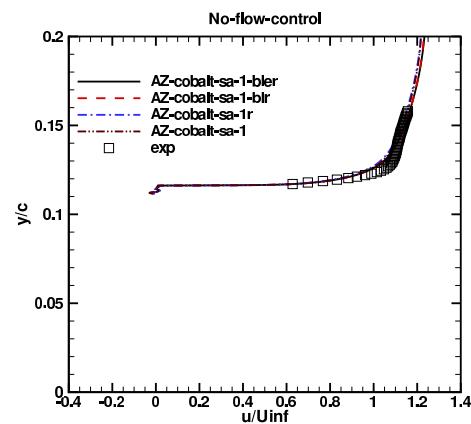
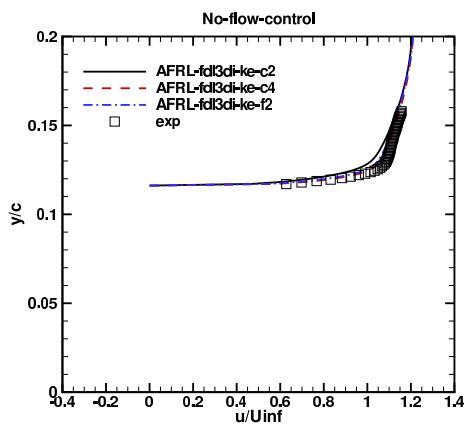
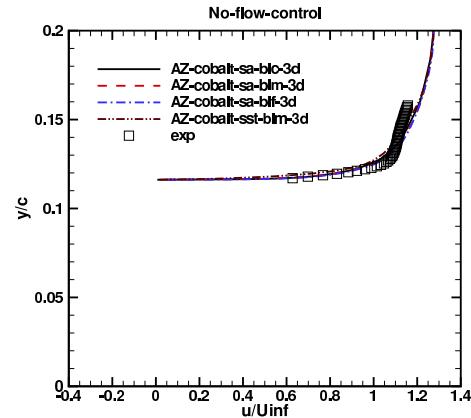
u'v' turbulent stress profiles  
at  $x/c = -2.14$  (cont'd):



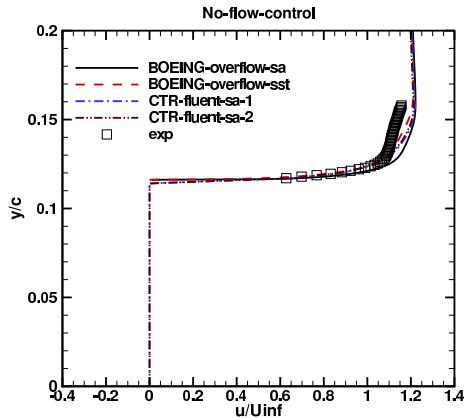
U-velocity profiles at  $x/c=0.65$ :



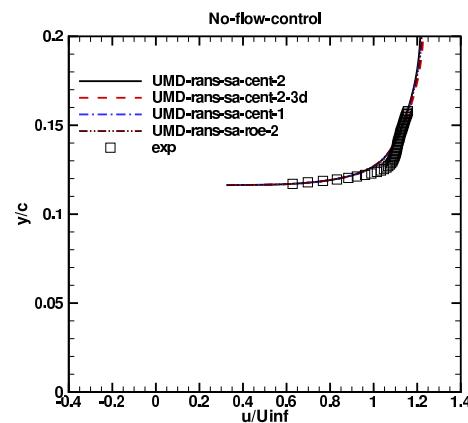
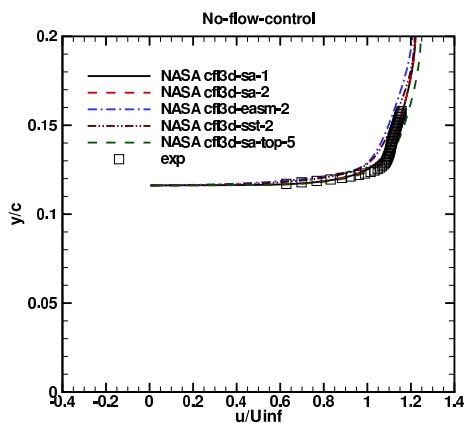
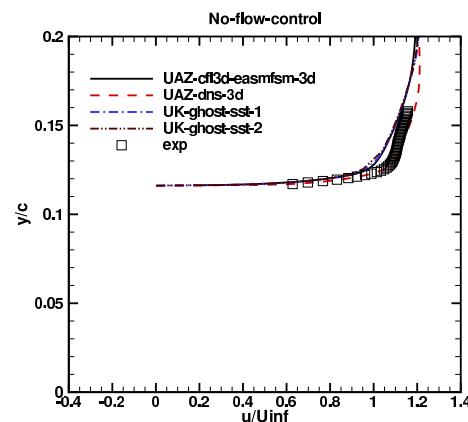
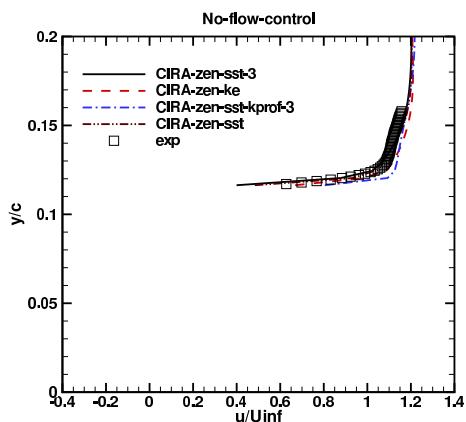
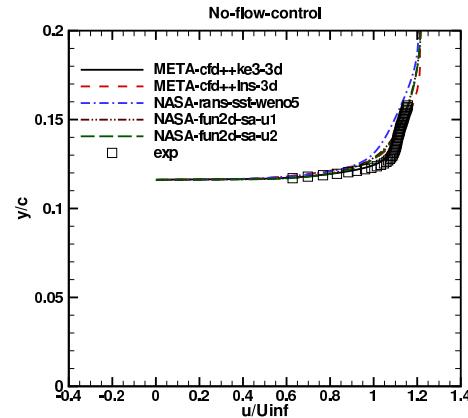
U-velocity profiles at  $x/c=0.65$  (cont'd):



U-velocity profiles at  $x/c=0.65$  (cont'd):

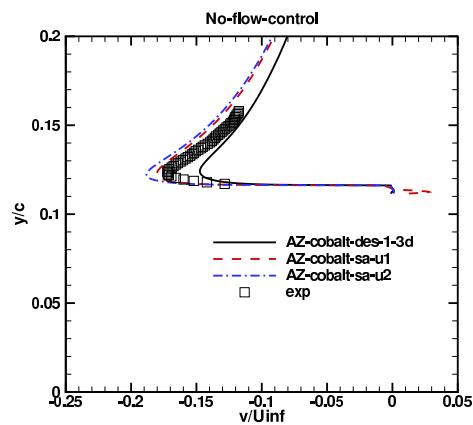
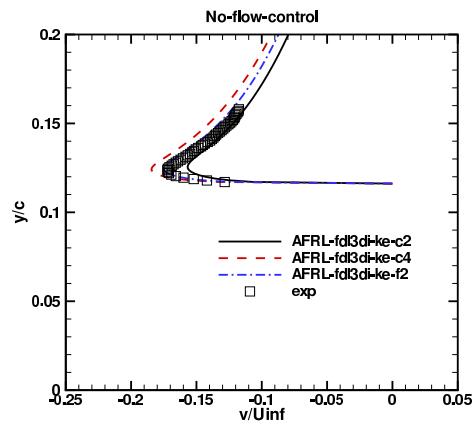
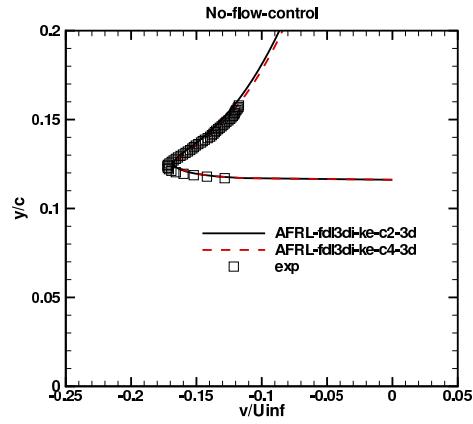
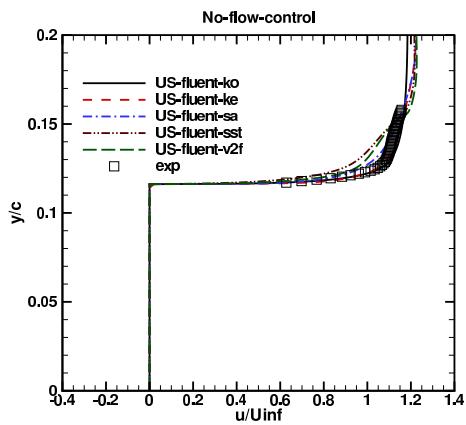
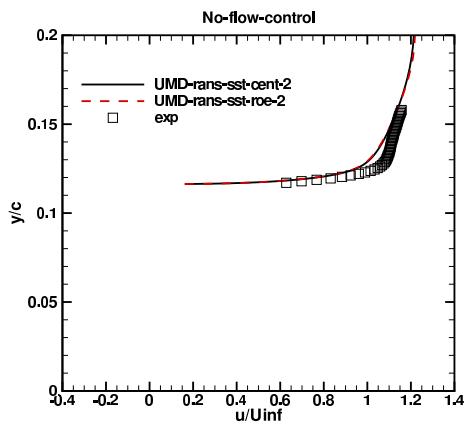


U-velocity profiles at  $x/c=0.65$  (cont'd):

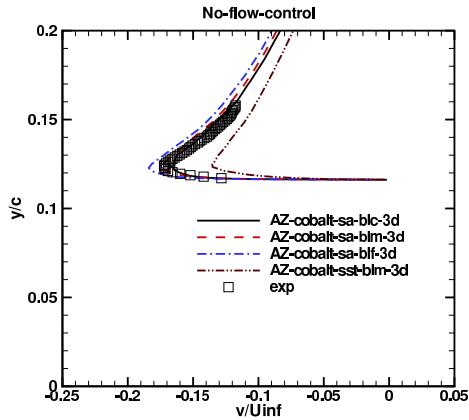


V-velocity profiles at  $x/c=0.65$ :

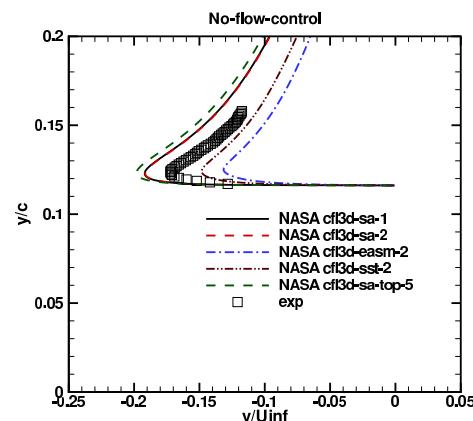
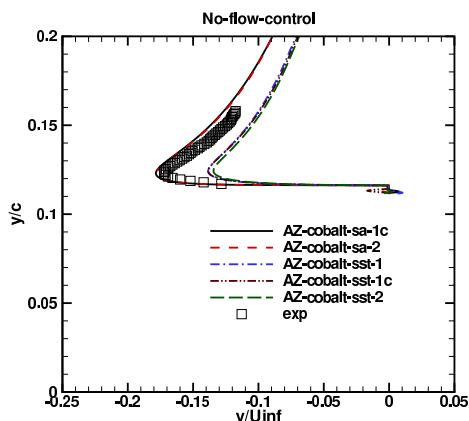
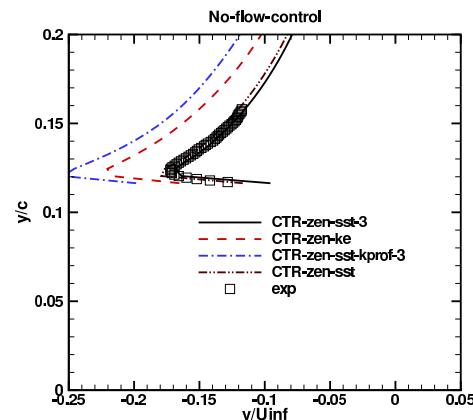
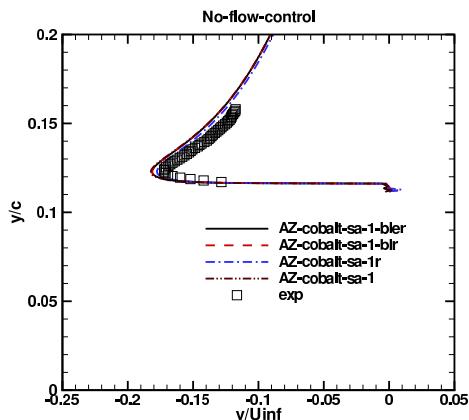
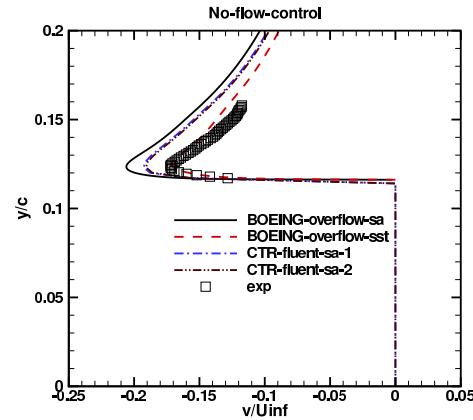
U-velocity profiles at  $x/c=0.65$  (cont'd):



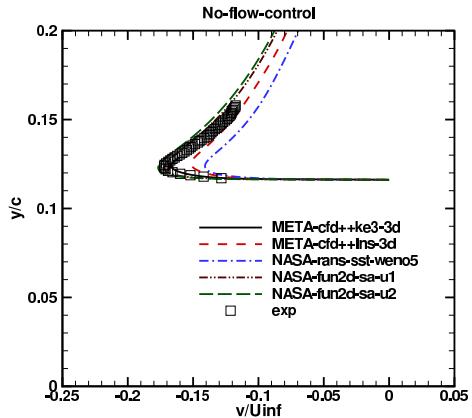
V-velocity profiles at  $x/c=0.65$  (cont'd):



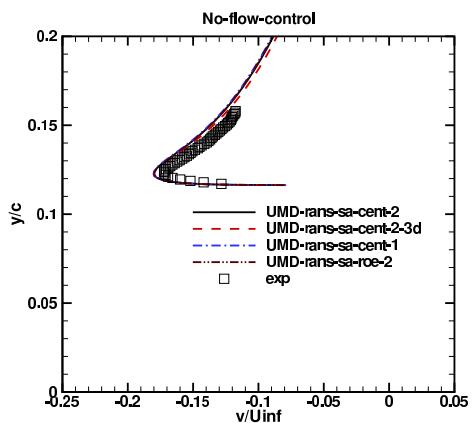
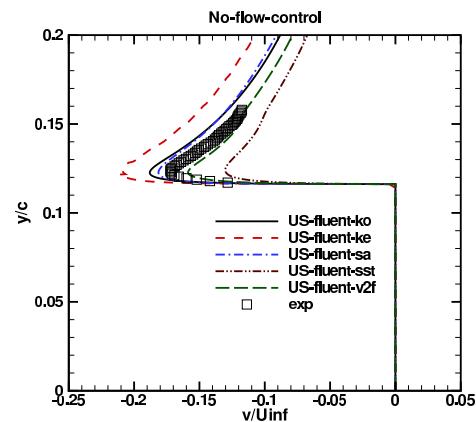
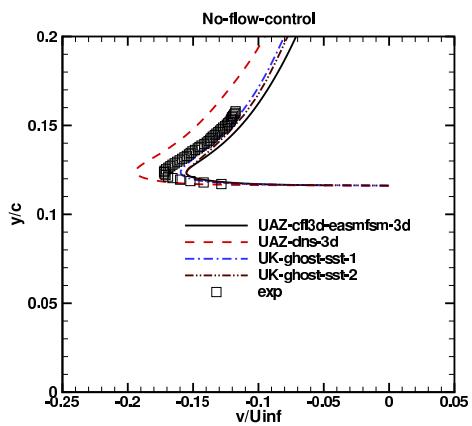
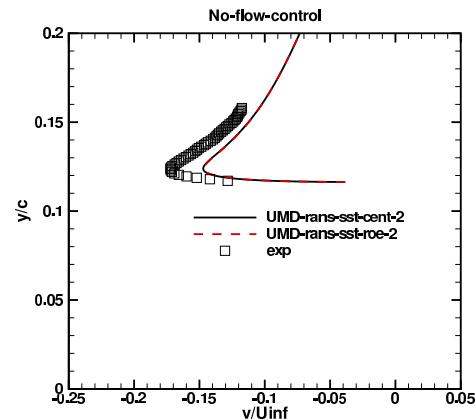
V-velocity profiles at  $x/c=0.65$  (cont'd):



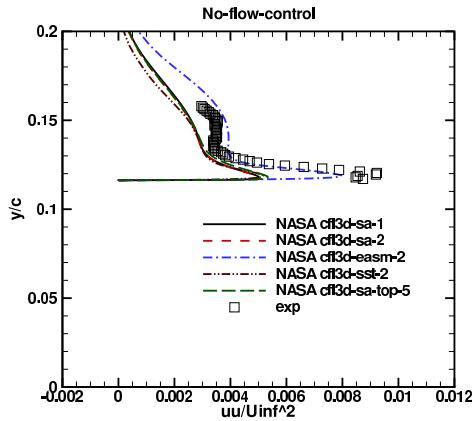
V-velocity profiles at  $x/c=0.65$  (cont'd):



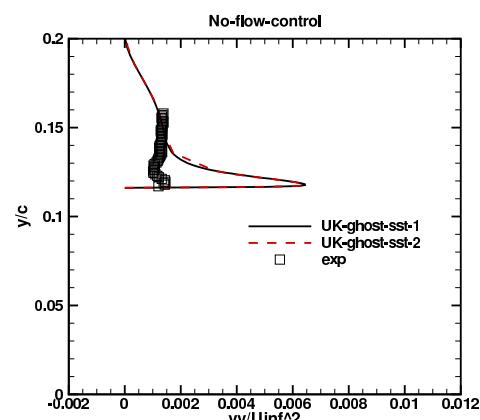
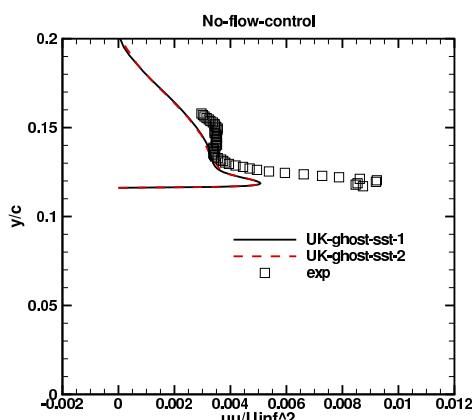
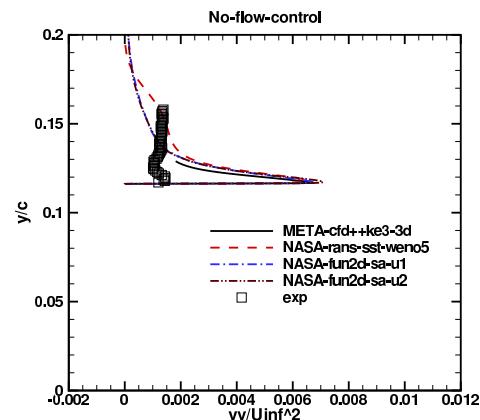
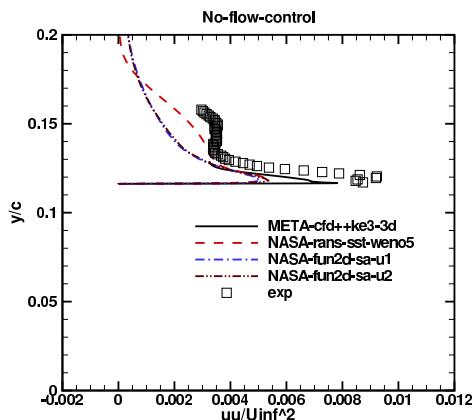
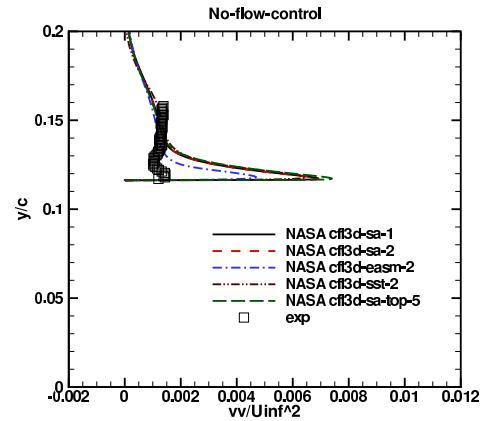
V-velocity profiles at  $x/c=0.65$  (cont'd):



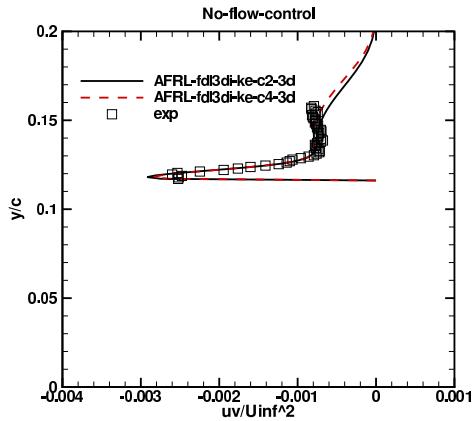
$u'u'$  turbulent stress profiles  
at  $x/c=0.65$ :



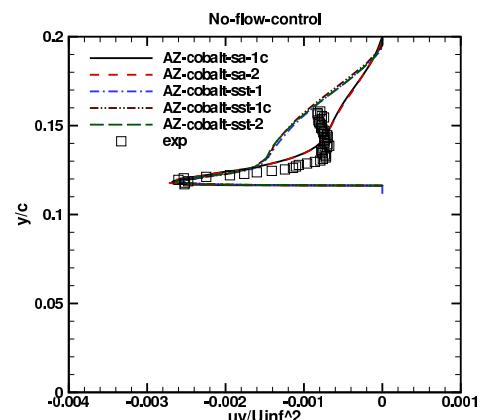
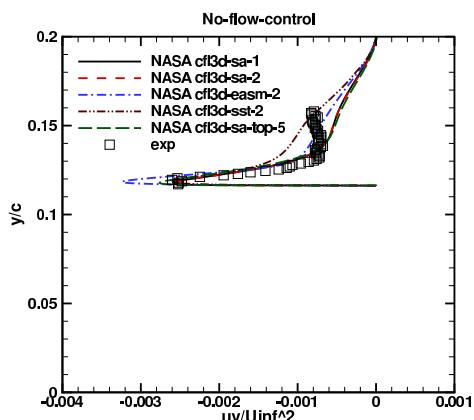
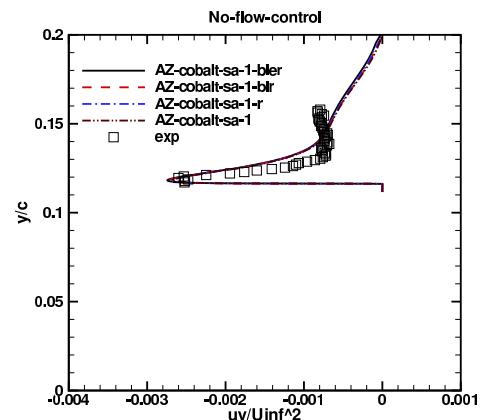
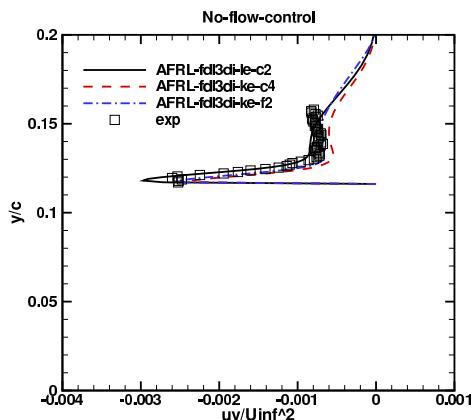
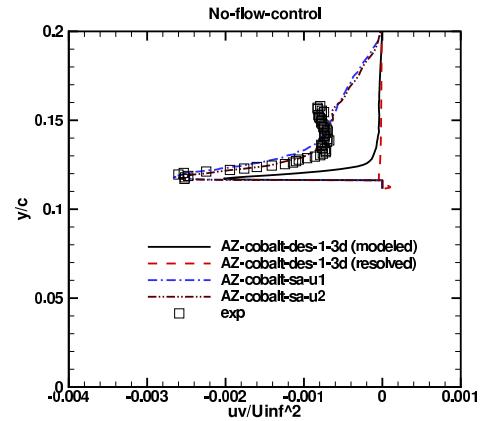
$v'v'$  turbulent stress profiles  
at  $x/c=0.65$ :



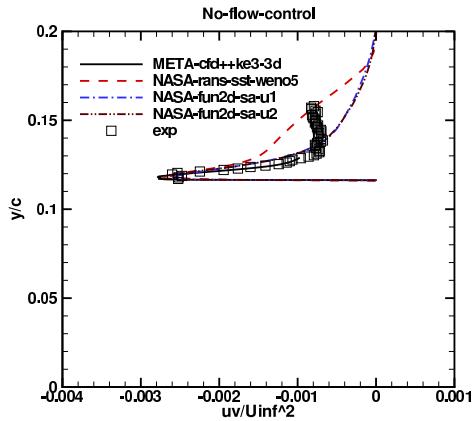
u'v' turbulent stress profiles  
at  $x/c=0.65$ :



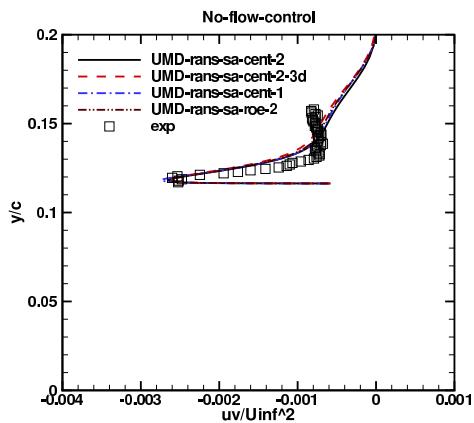
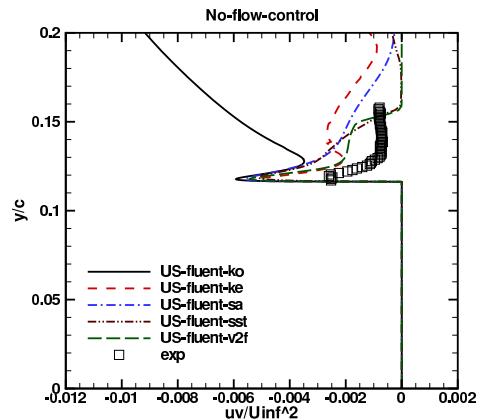
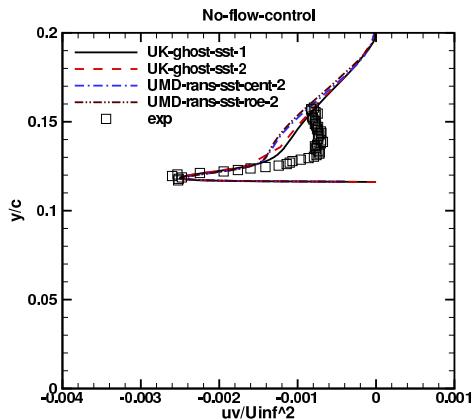
u'v' turbulent stress profiles  
at  $x/c=0.65$  (cont'd):



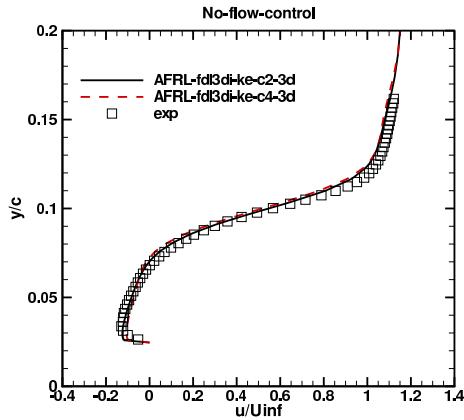
u'v' turbulent stress profiles  
at  $x/c=0.65$  (cont'd):



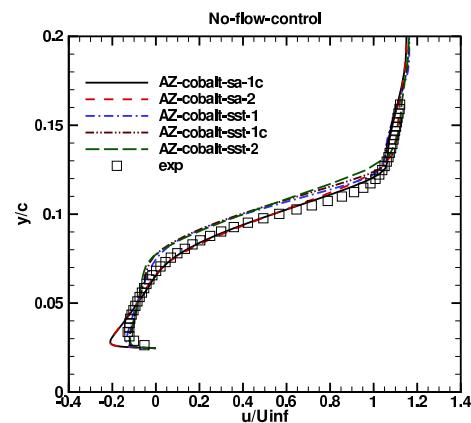
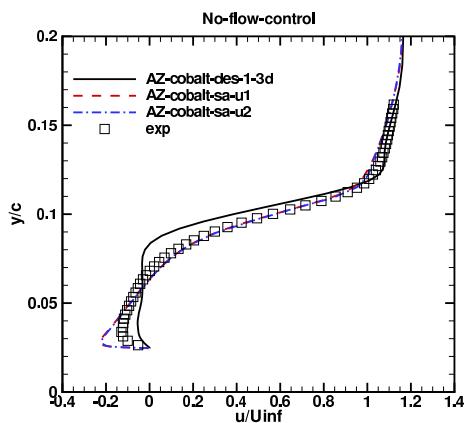
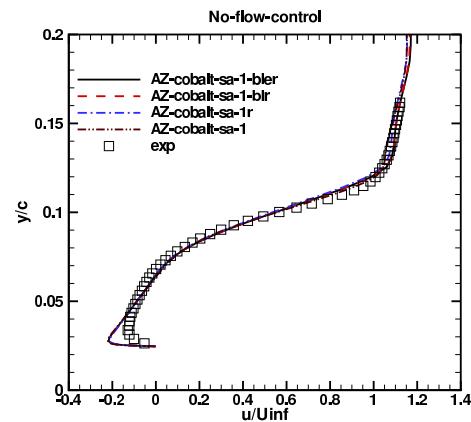
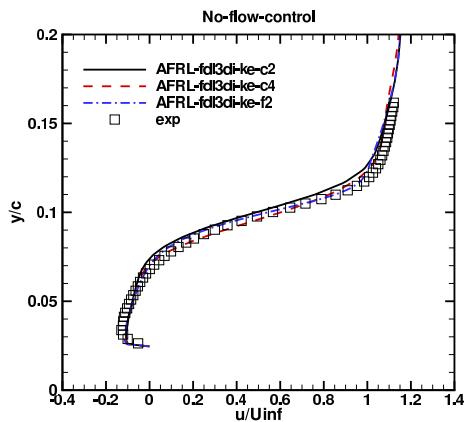
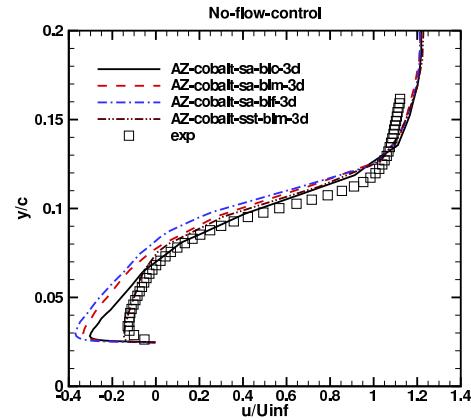
u'v' turbulent stress profiles  
at  $x/c=0.65$  (cont'd):



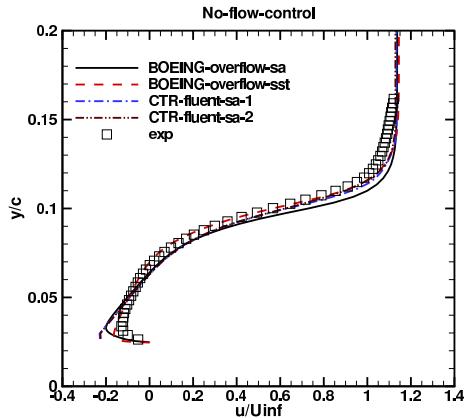
U-velocity profiles at  $x/c=0.8$ :



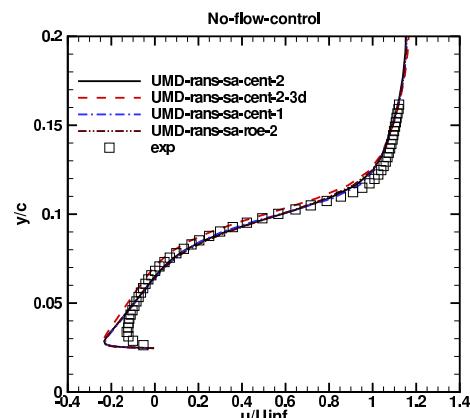
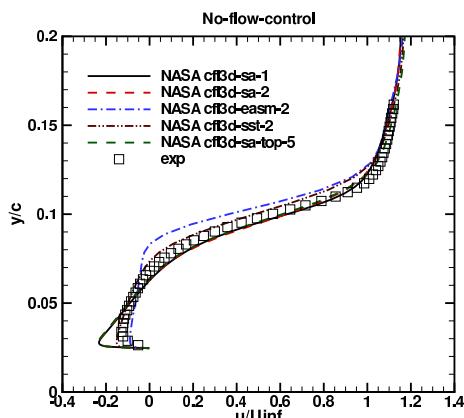
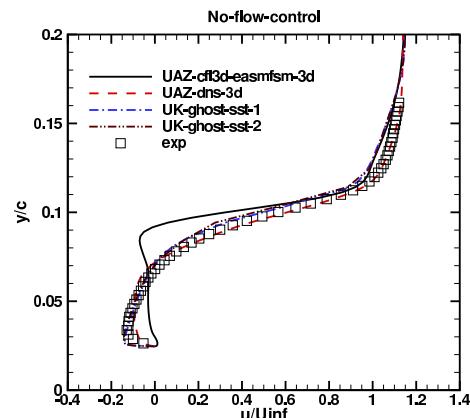
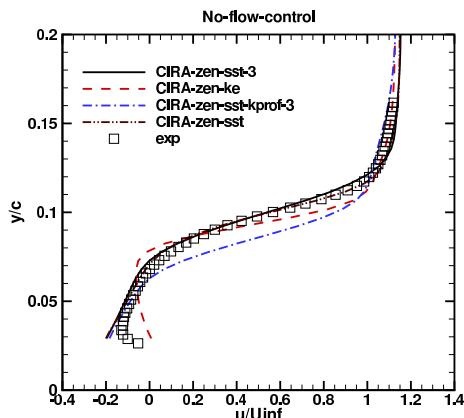
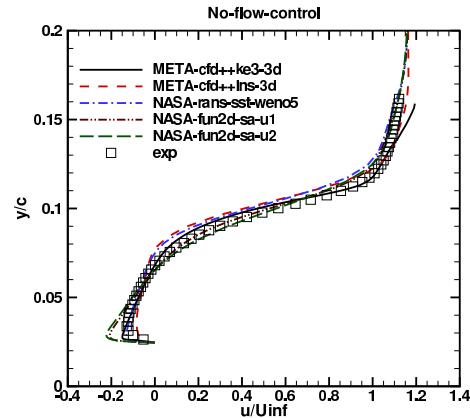
U-velocity profiles at  $x/c=0.8$  (cont'd):



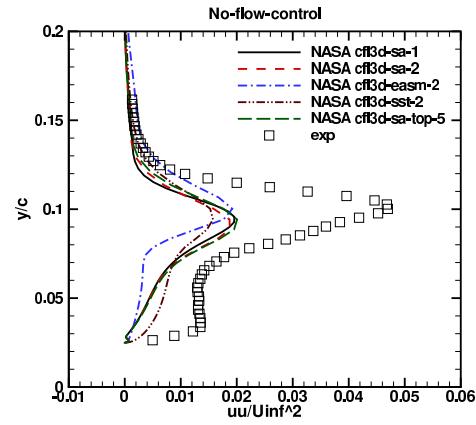
U-velocity profiles at  $x/c=0.8$  (cont'd):



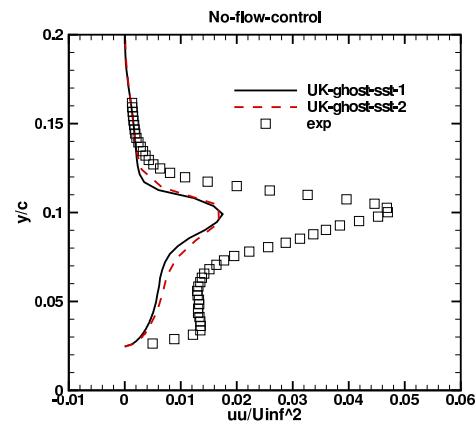
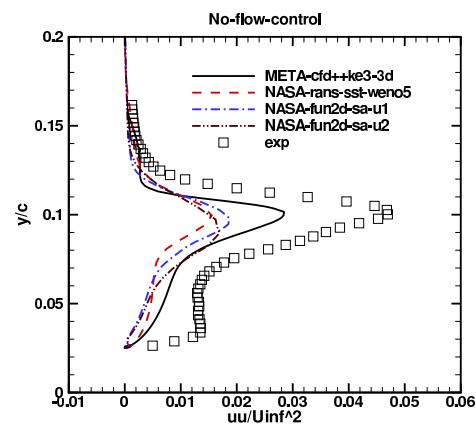
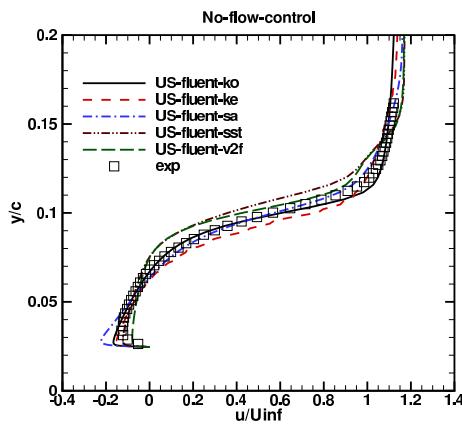
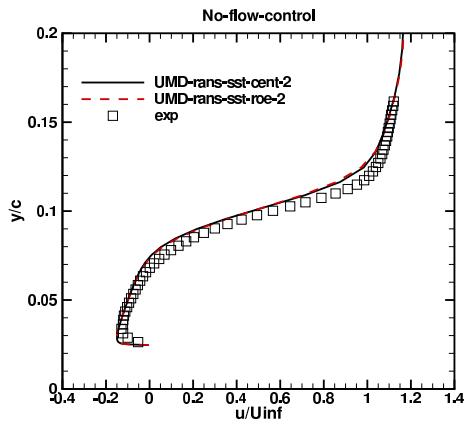
U-velocity profiles at  $x/c=0.8$  (cont'd):



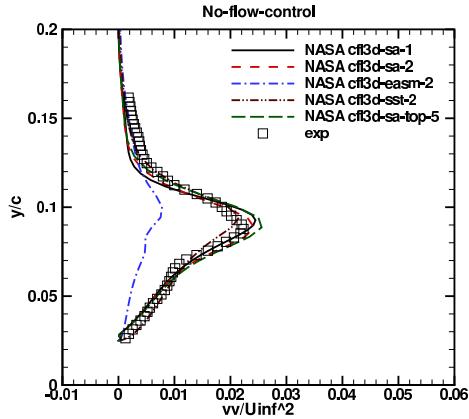
$u'u'$  turbulent stress profiles  
at  $x/c=0.8$ :



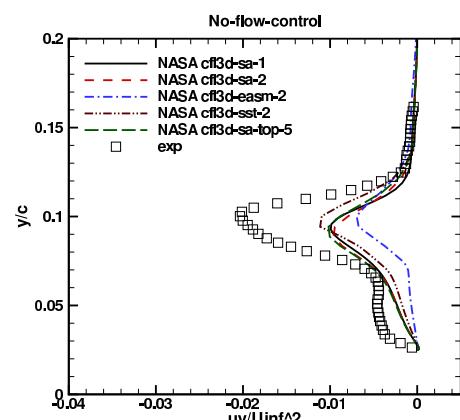
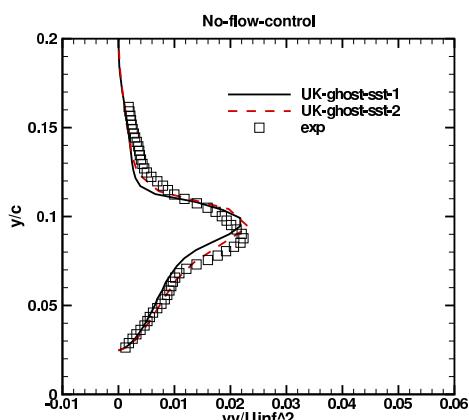
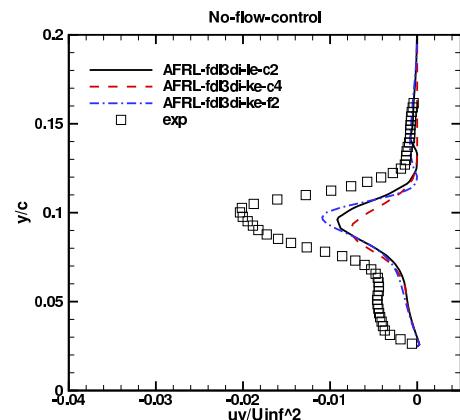
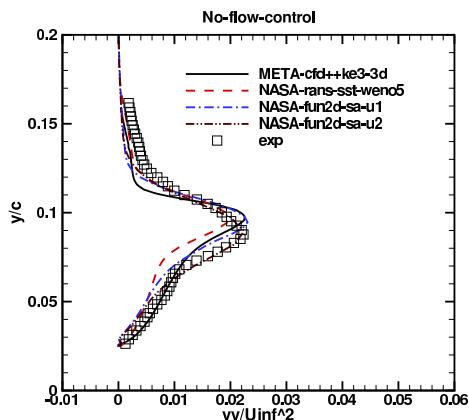
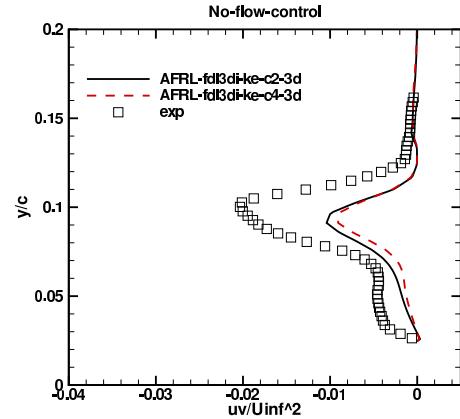
U-velocity profiles at  $x/c=0.8$  (cont'd):



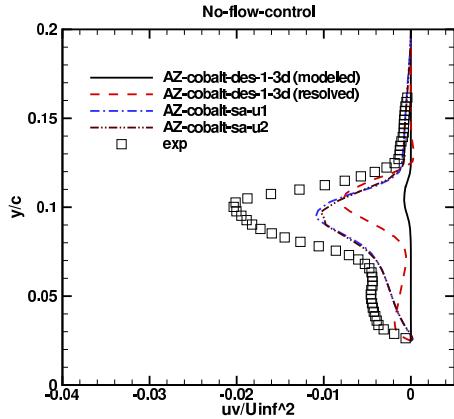
v'v' turbulent stress profiles  
at  $x/c=0.8$ :



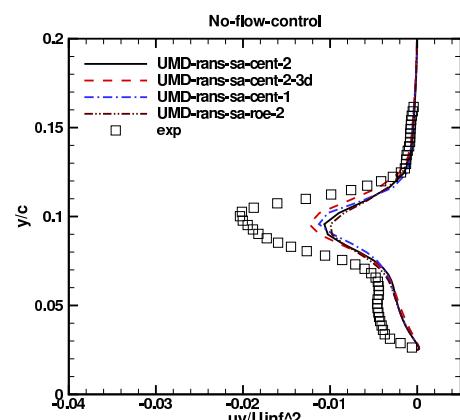
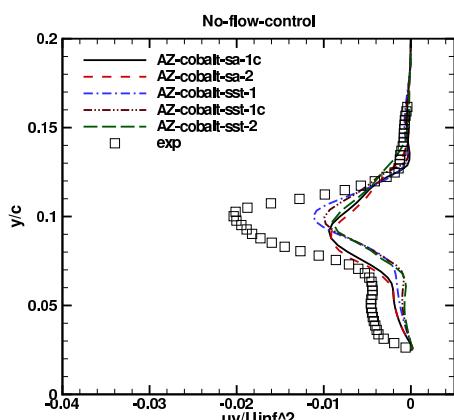
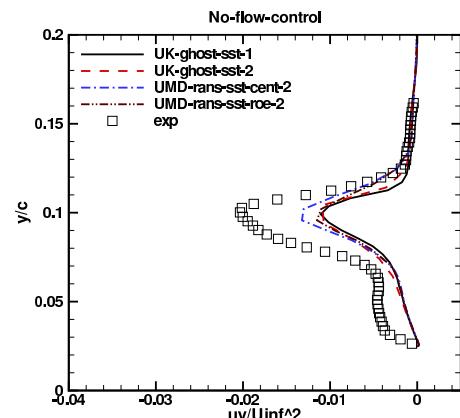
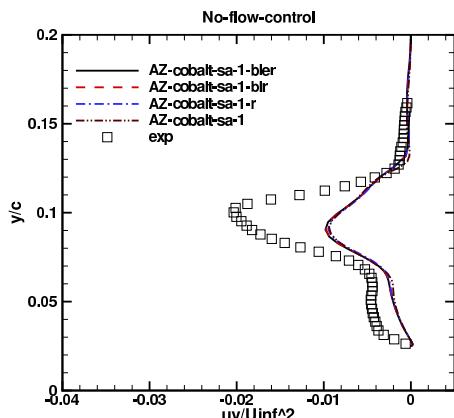
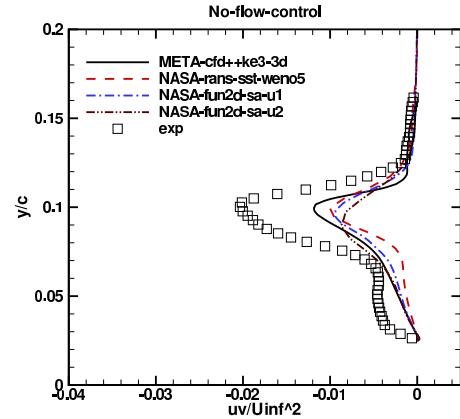
u'v' turbulent stress profiles  
at  $x/c=0.8$ :



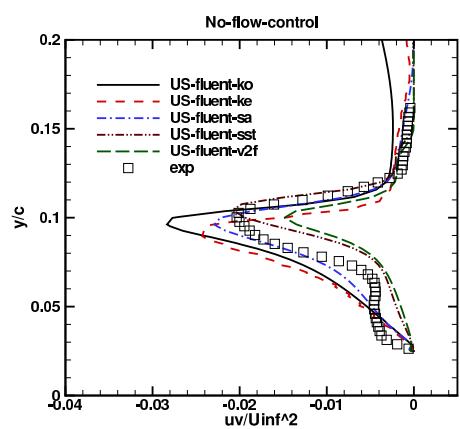
u'v' turbulent stress profiles  
at  $x/c=0.8$  (cont'd):



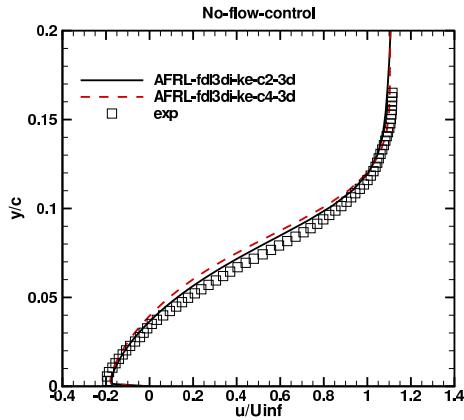
u'v' turbulent stress profiles  
at  $x/c=0.8$  (cont'd):



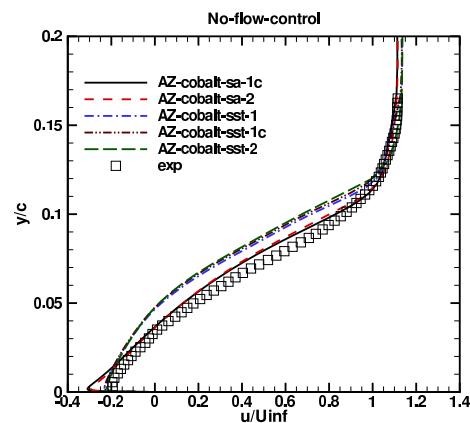
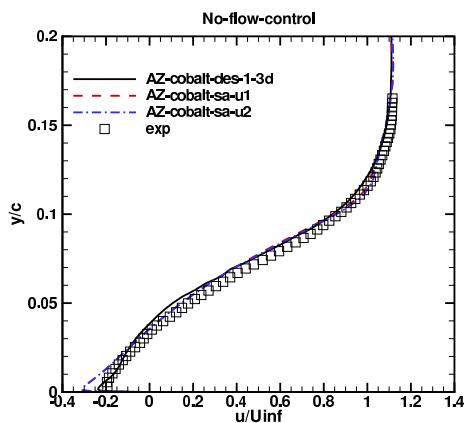
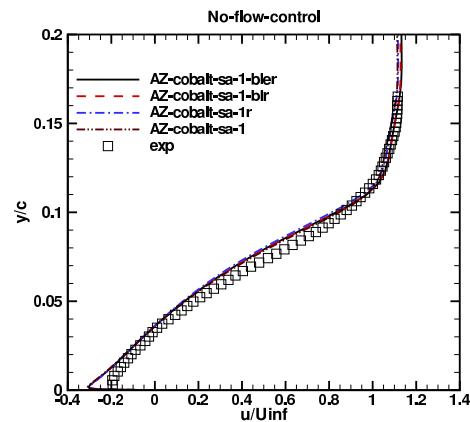
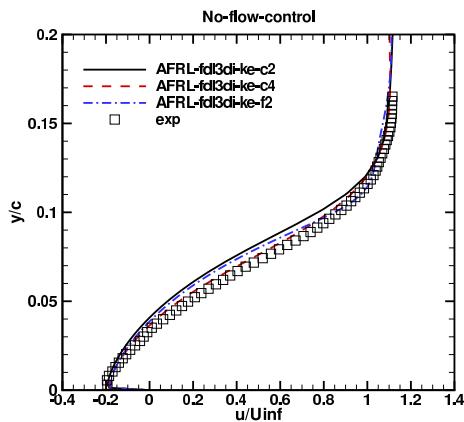
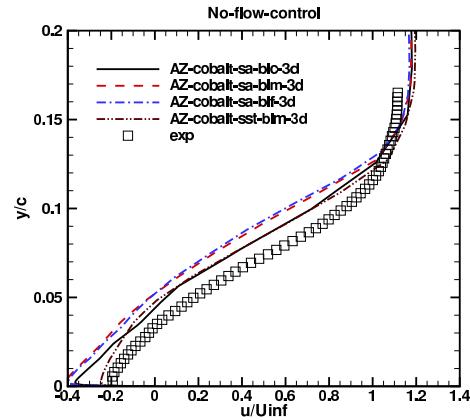
$u'v'$  turbulent stress profiles  
at  $x/c=0.8$  (cont'd):



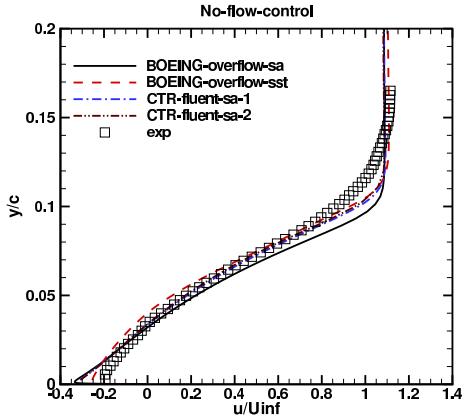
U-velocity profiles at  $x/c=1.0$ :



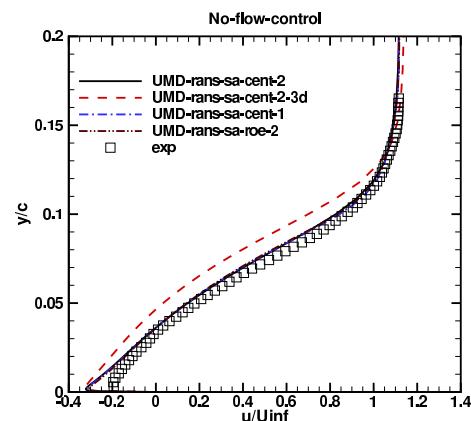
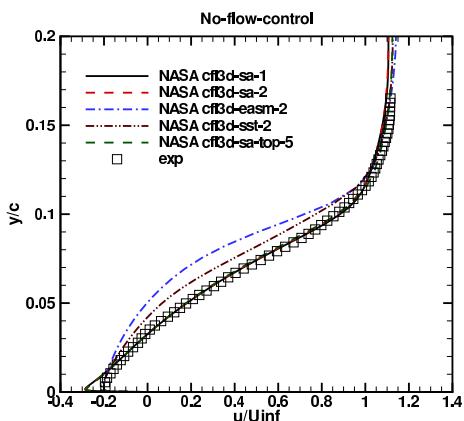
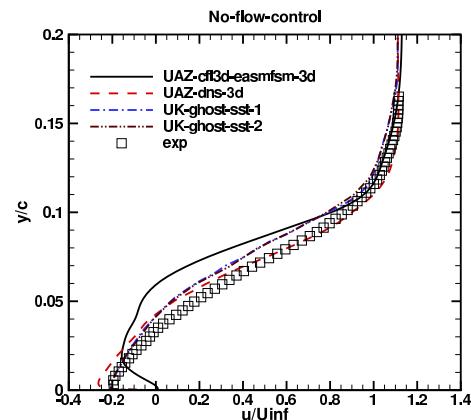
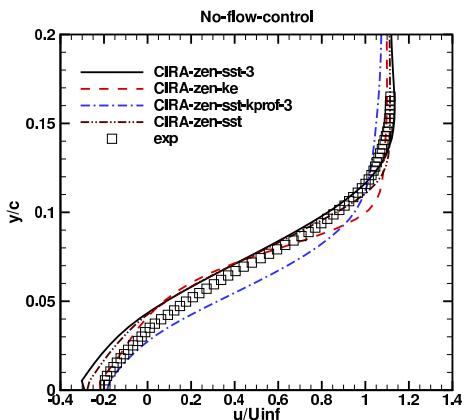
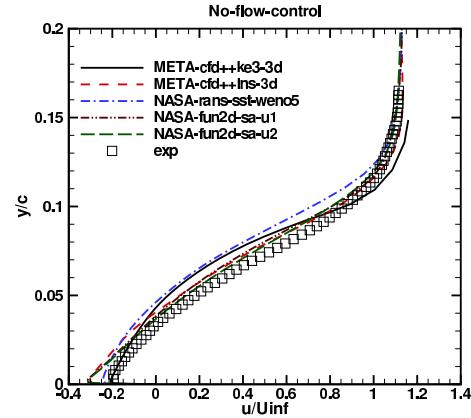
U-velocity profiles at  $x/c=1.0$  (cont'd):



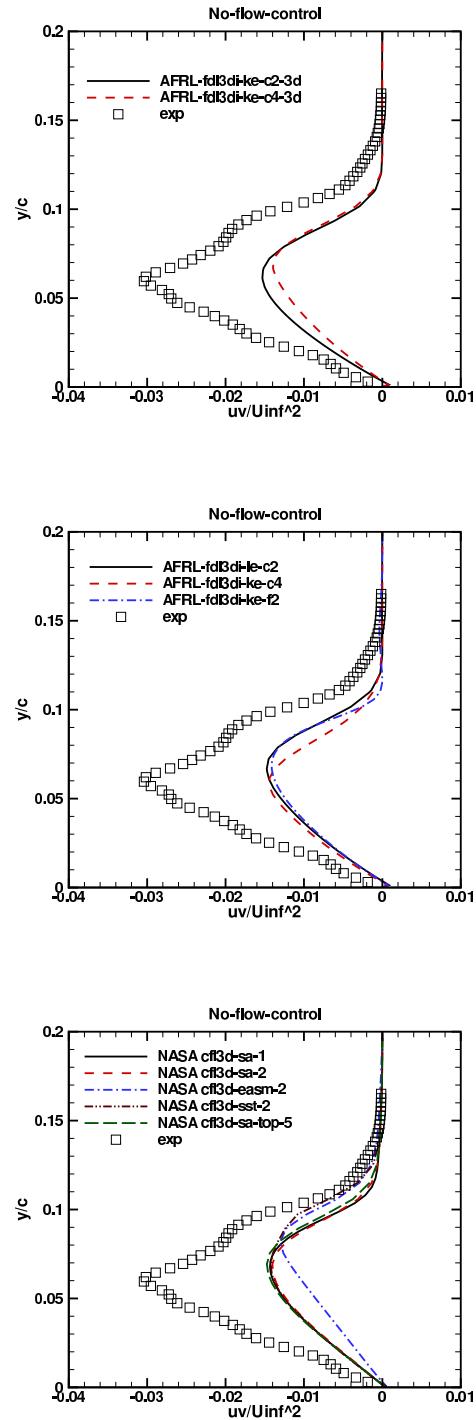
U-velocity profiles at  $x/c=1.0$  (cont'd):



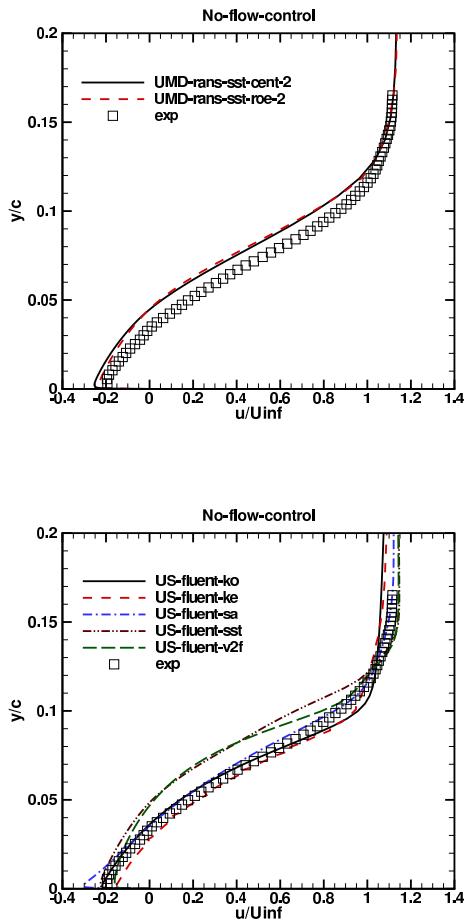
U-velocity profiles at  $x/c=1.0$  (cont'd):



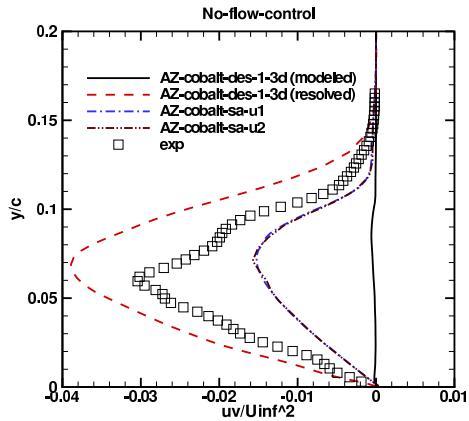
u'v' turbulent stress profiles  
at  $x/c=1.0$ :



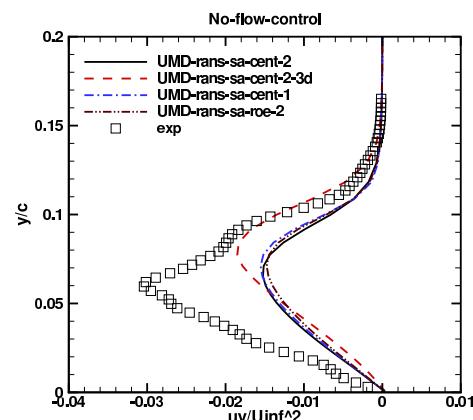
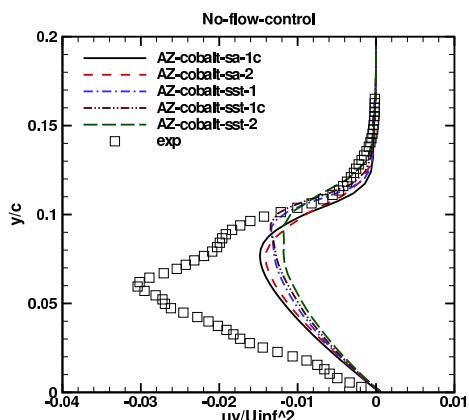
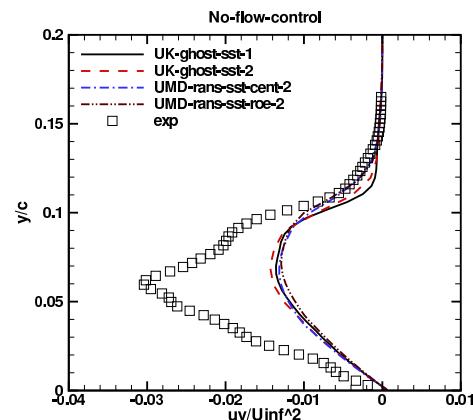
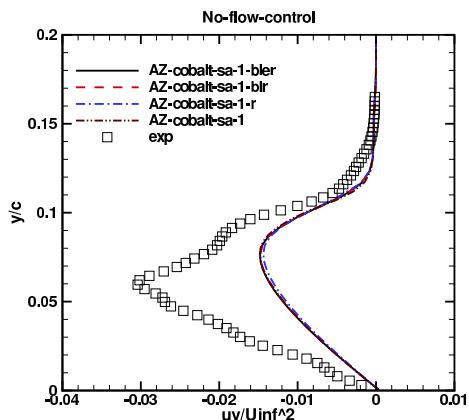
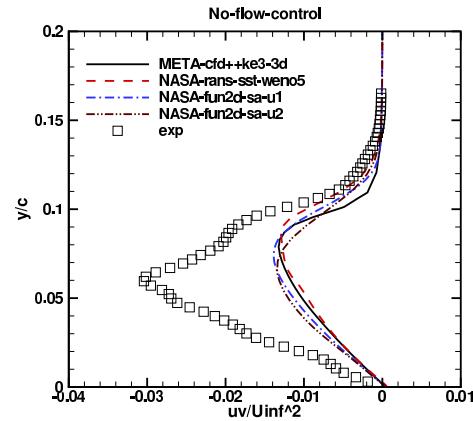
U-velocity profiles at  $x/c=1.0$  (cont'd):



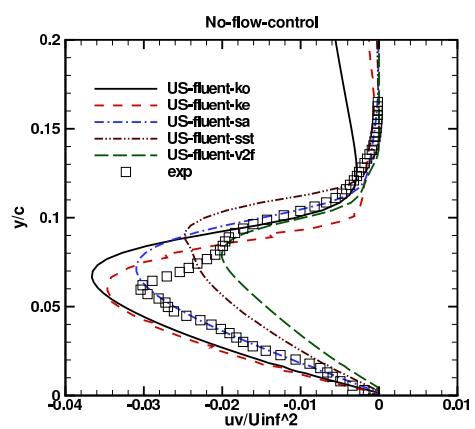
$u'v'$  turbulent stress profiles  
at  $x/c=1.0$  (cont'd):



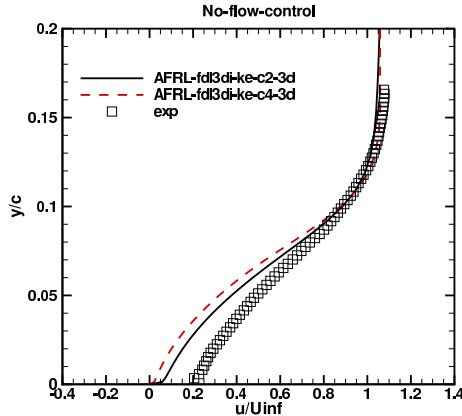
$u'v'$  turbulent stress profiles  
at  $x/c=1.0$  (cont'd):



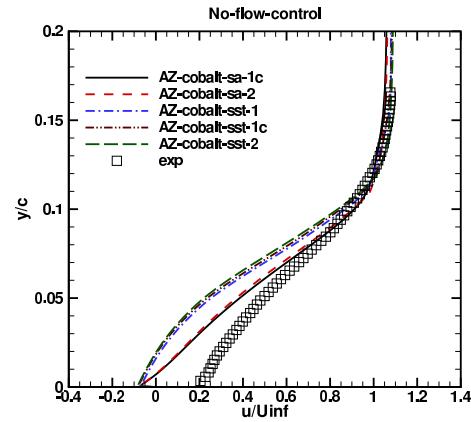
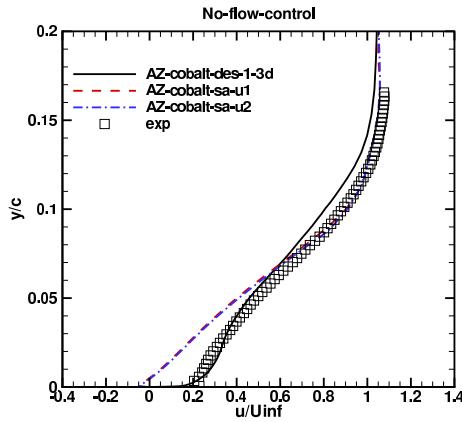
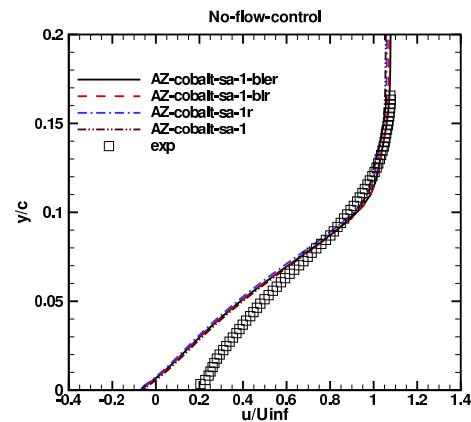
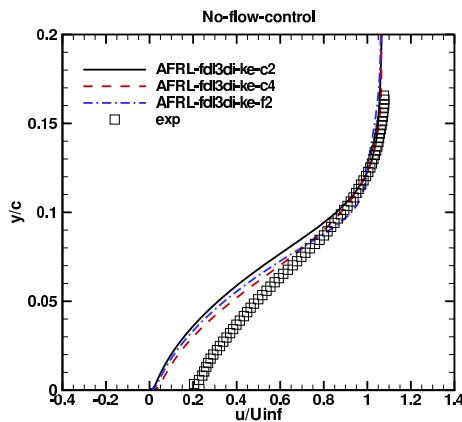
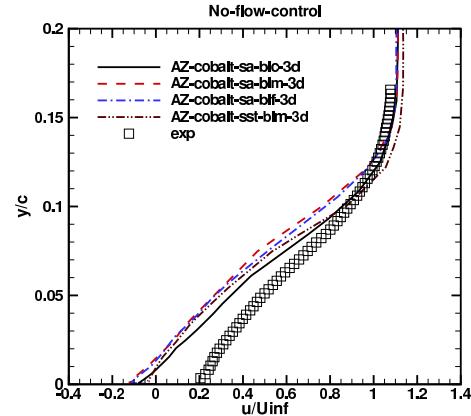
$u'v'$  turbulent stress profiles  
at  $x/c=1.0$  (cont'd):



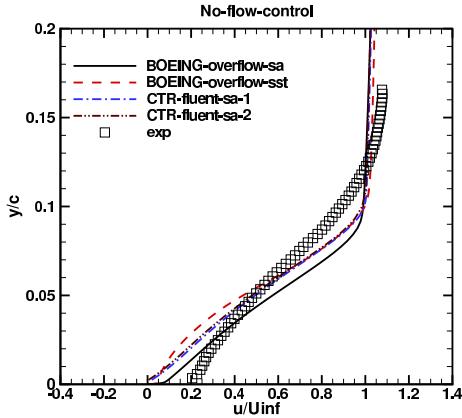
U-velocity profiles at  $x/c=1.2$ :



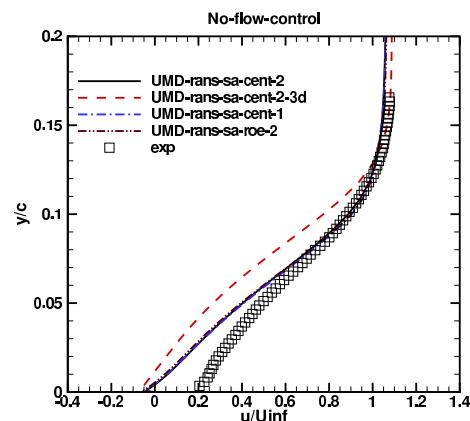
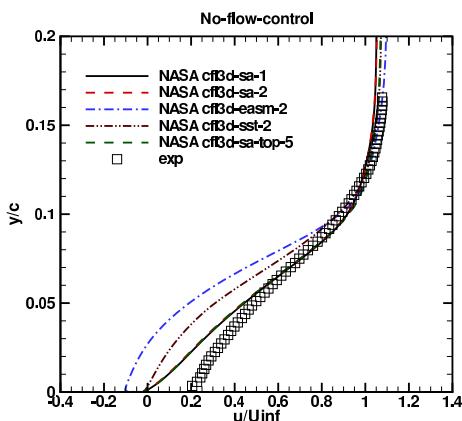
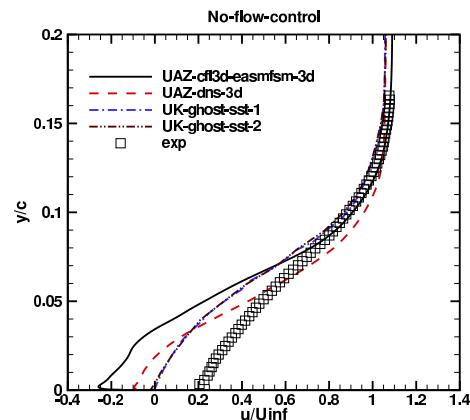
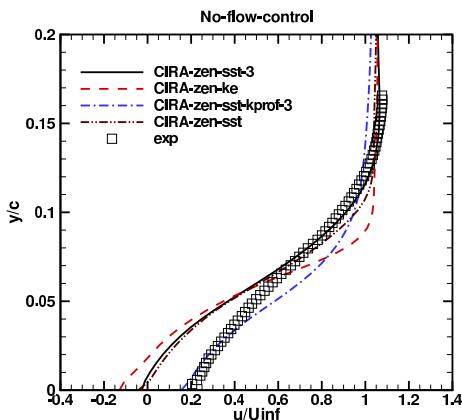
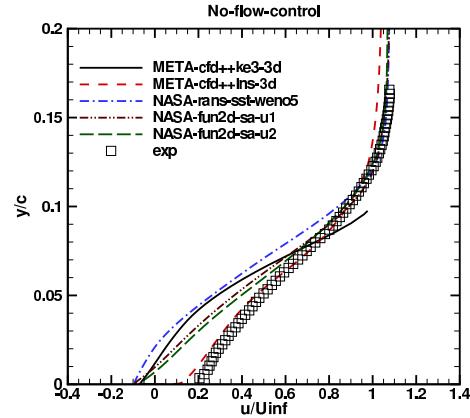
U-velocity profiles at  $x/c=1.2$  (cont'd):



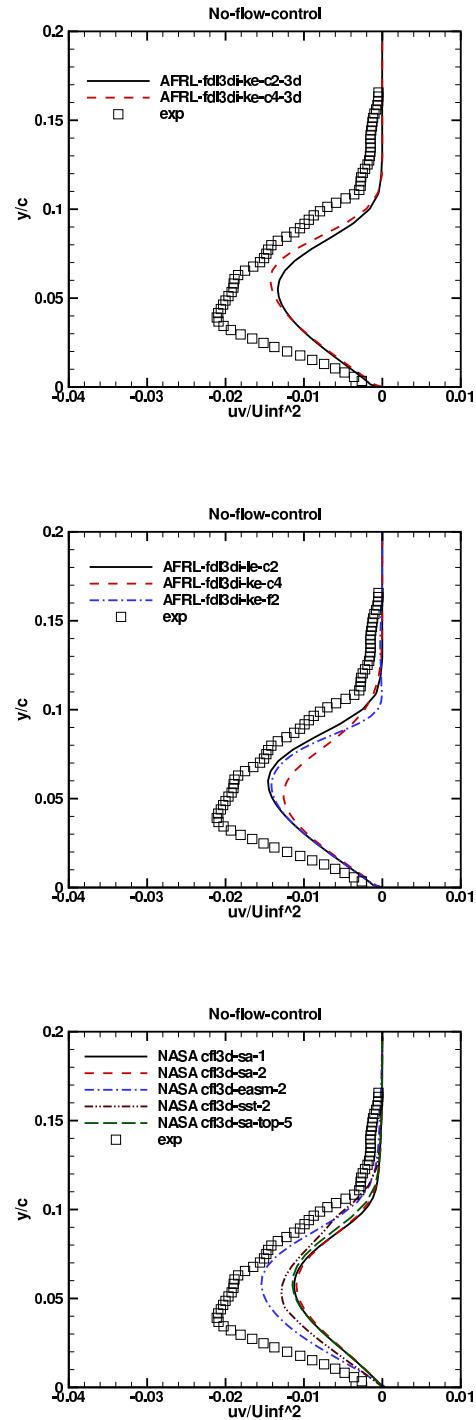
U-velocity profiles at  $x/c=1.2$  (cont'd):



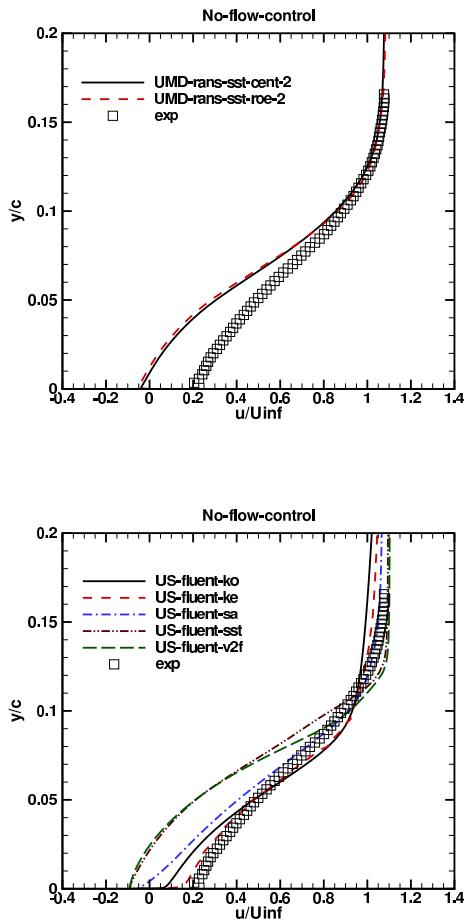
U-velocity profiles at  $x/c=1.2$  (cont'd):



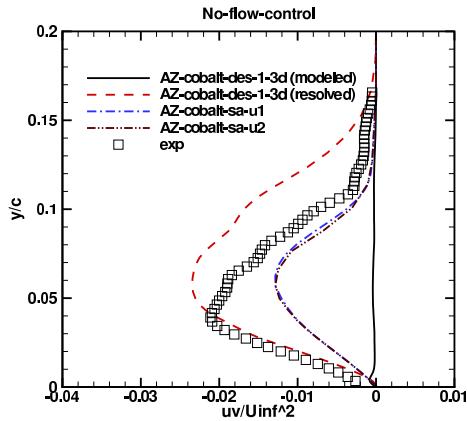
u'v' turbulent stress profiles  
at  $x/c=1.2$ :



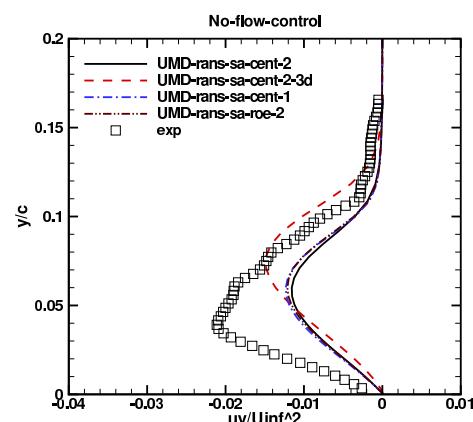
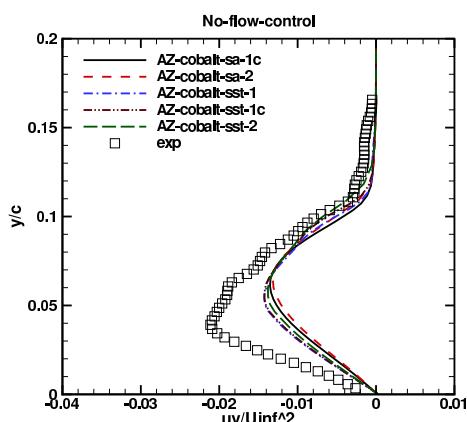
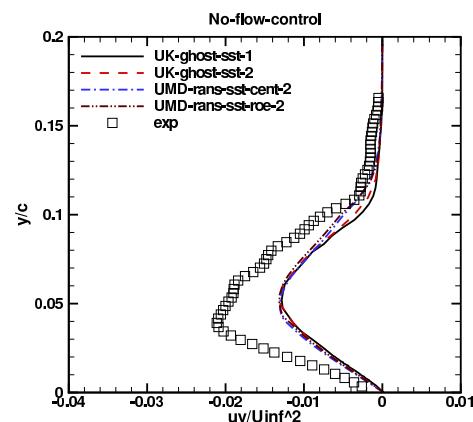
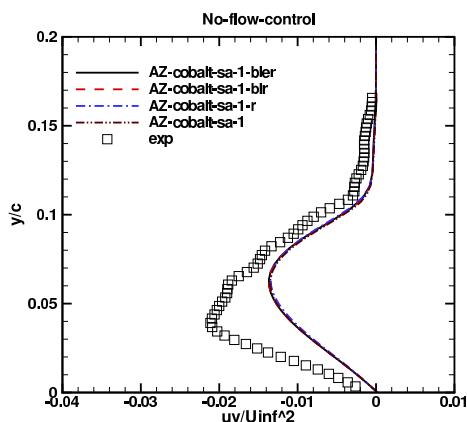
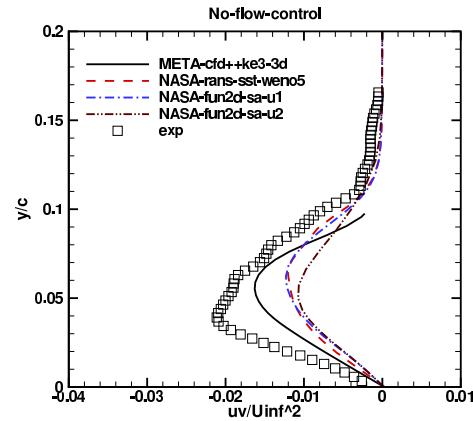
U-velocity profiles at  $x/c=1.2$  (cont'd):



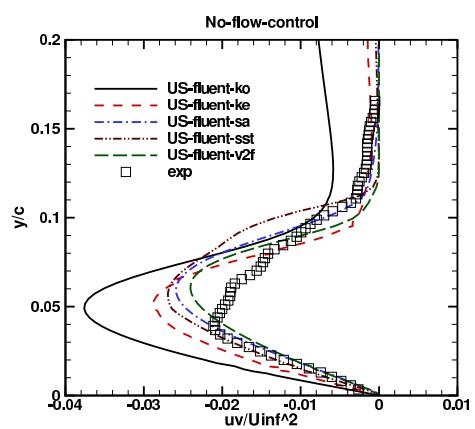
$u'v'$  turbulent stress profiles  
at  $x/c=1.2$  (cont'd):



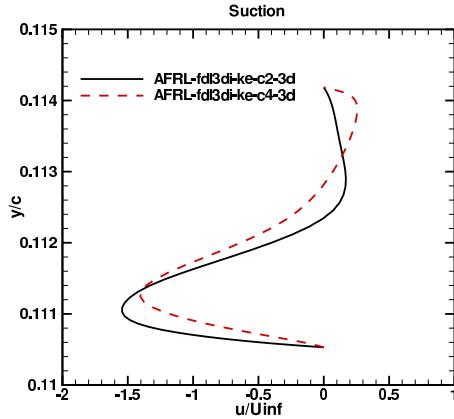
$u'v'$  turbulent stress profiles  
at  $x/c=1.2$  (cont'd):



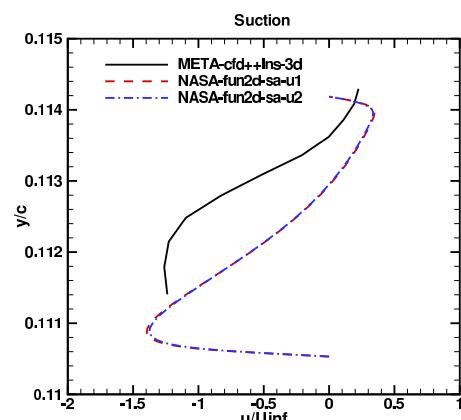
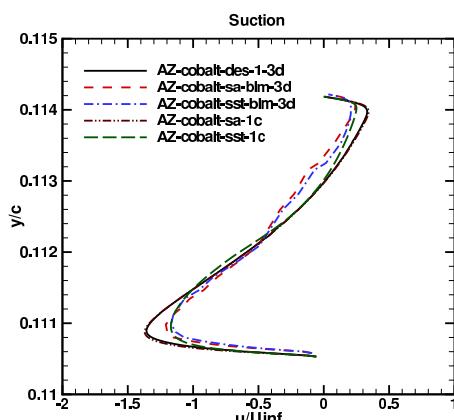
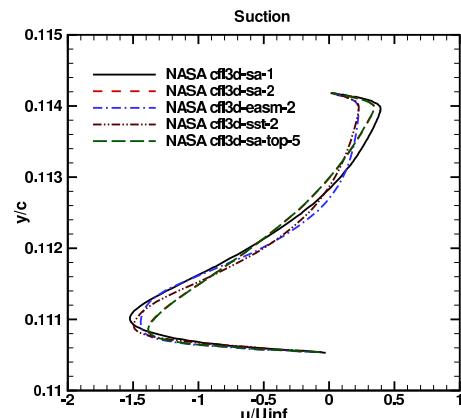
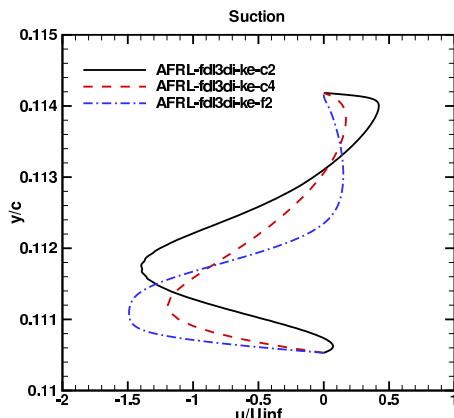
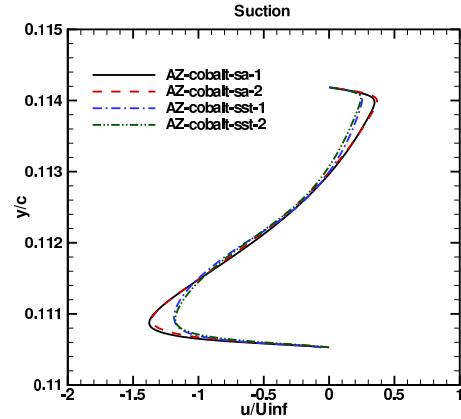
$u'v'$  turbulent stress profiles  
at  $x/c=1.2$  (cont'd):



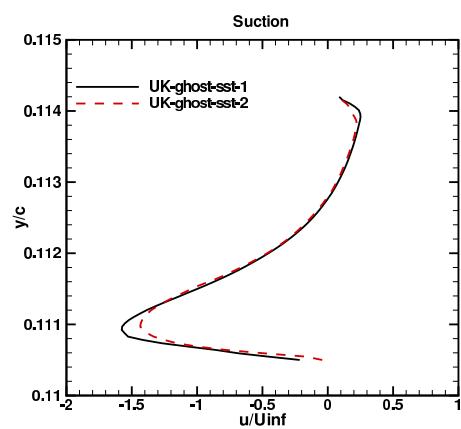
Suction-case U-velocity profiles inside slot at  $x/c=0.647$ :



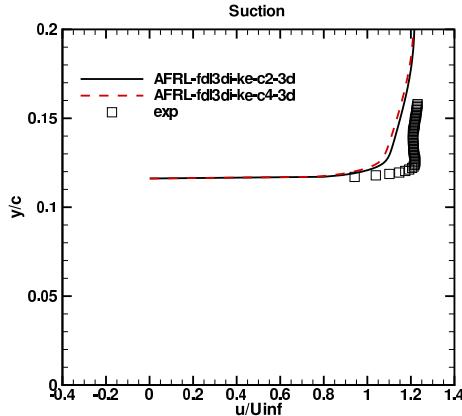
Suction-case U-velocity profiles inside slot at  $x/c=0.647$  (cont'd):



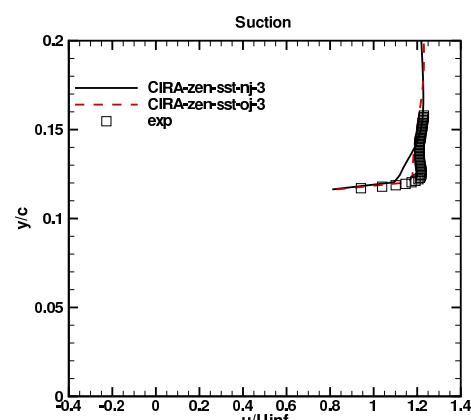
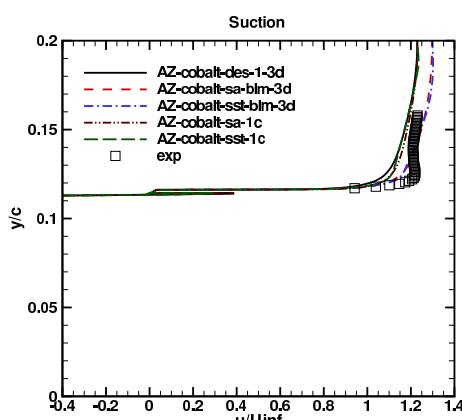
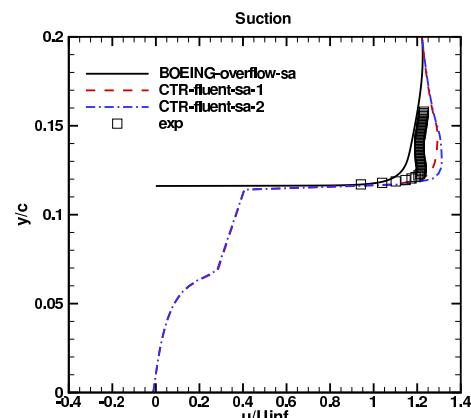
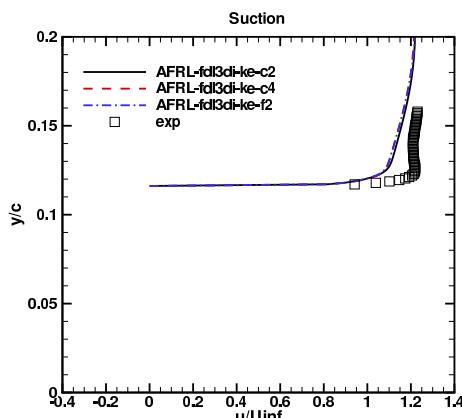
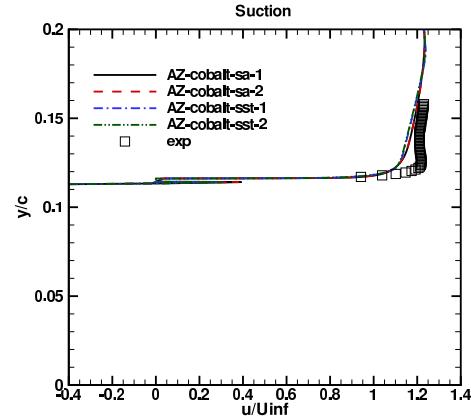
Suction-case U-velocity profiles inside  
slot at  $x/c=0.647$  (cont'd):



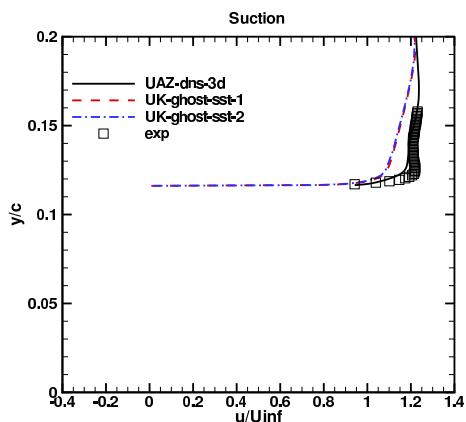
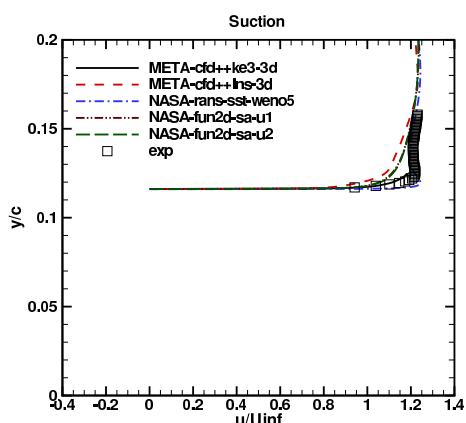
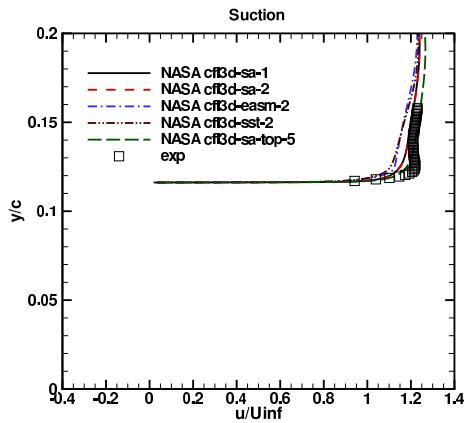
Suction-case U-velocity profiles  
at  $x/c=0.65$ :



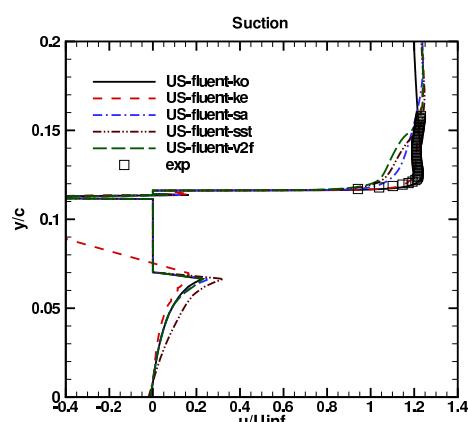
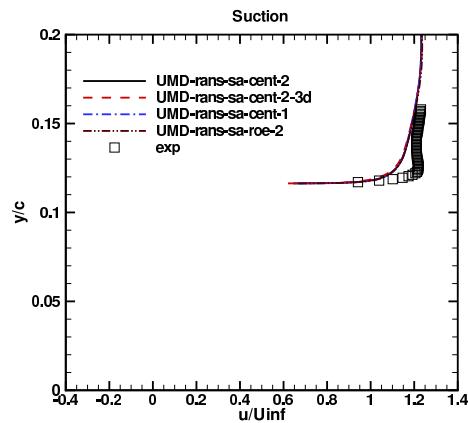
Suction-case U-velocity profiles  
at  $x/c=0.65$  (cont'd):



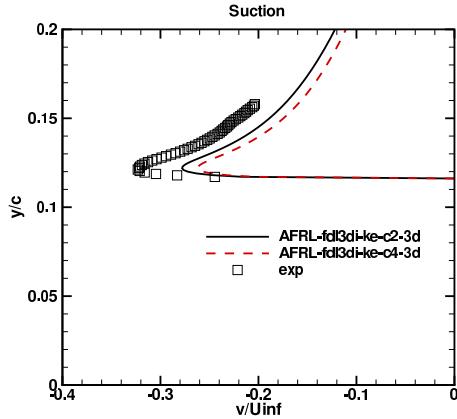
Suction-case U-velocity profiles  
at  $x/c=0.65$  (cont'd):



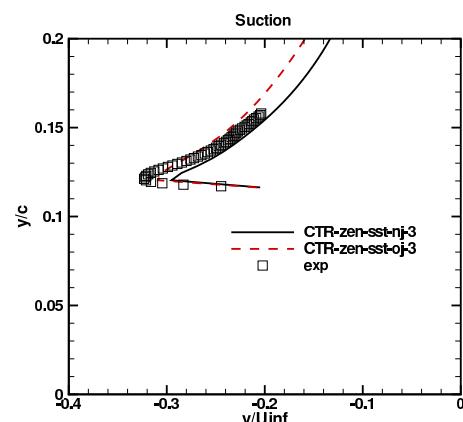
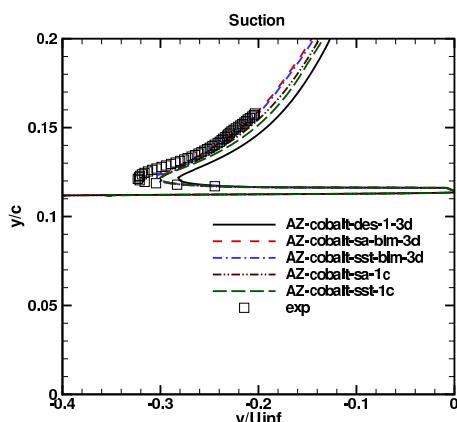
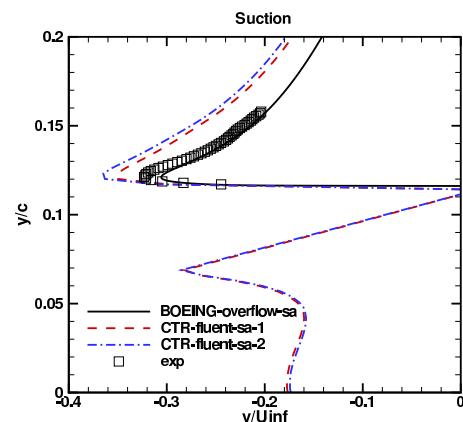
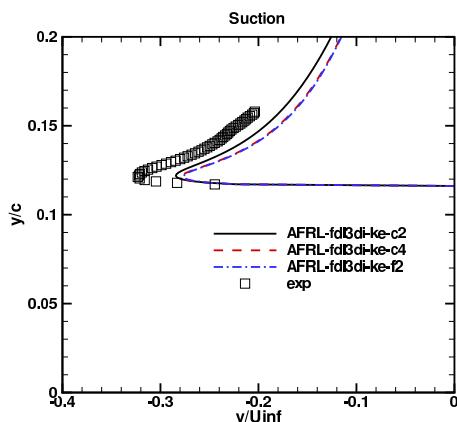
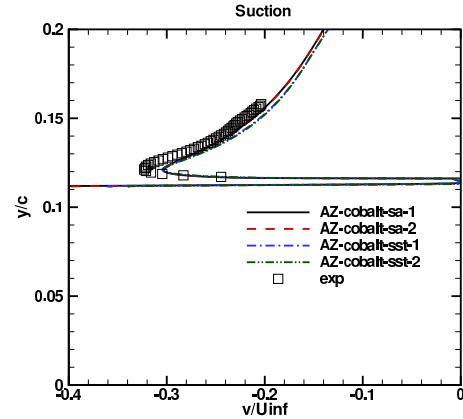
Suction-case U-velocity profiles  
at  $x/c=0.65$  (cont'd):



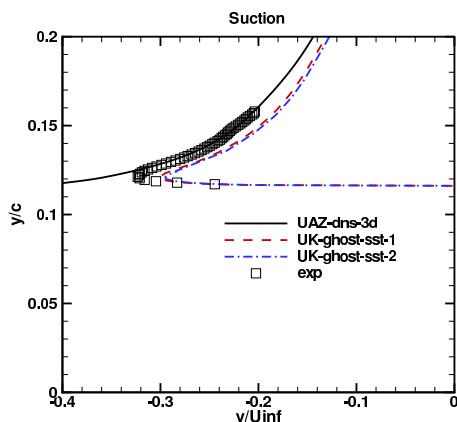
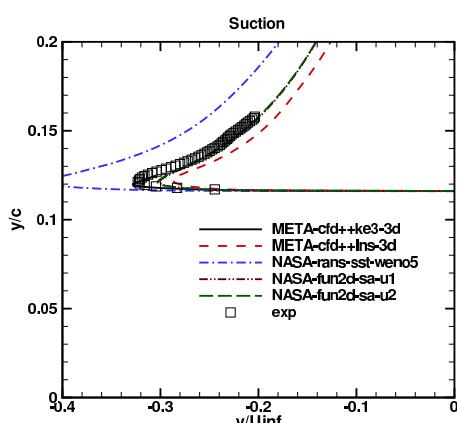
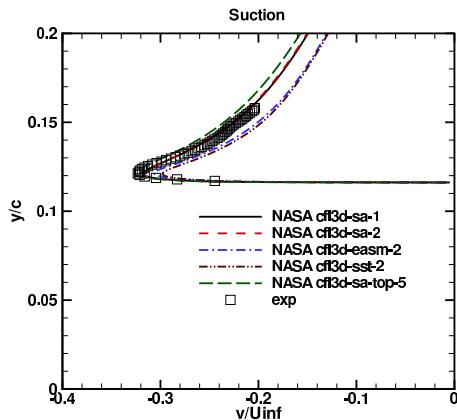
Suction-case V-velocity profiles  
at  $x/c=0.65$ :



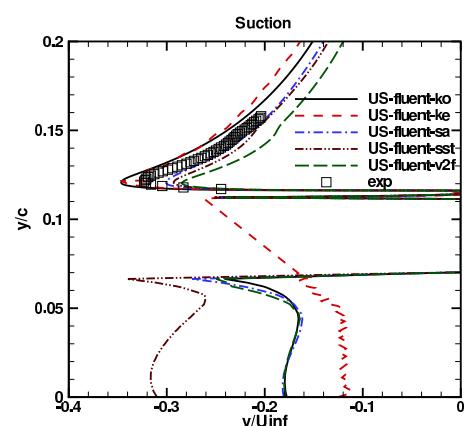
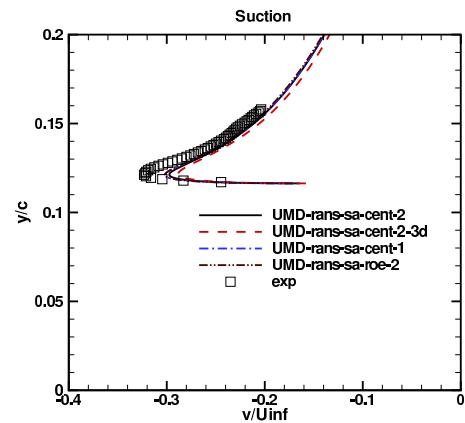
Suction-case V-velocity profiles  
at  $x/c=0.65$  (cont'd):



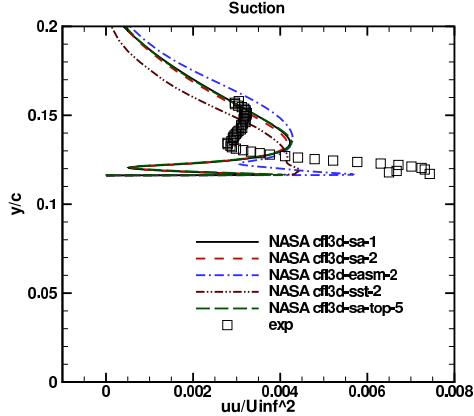
Suction-case V-velocity profiles  
at  $x/c=0.65$  (cont'd):



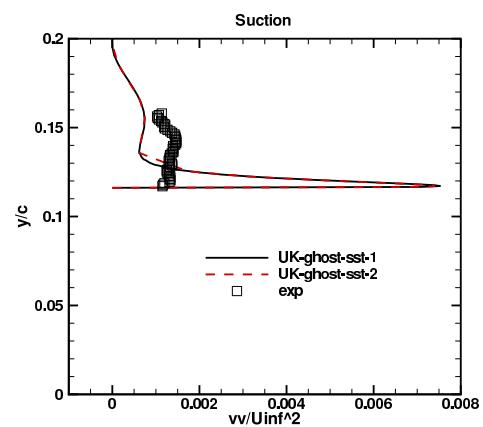
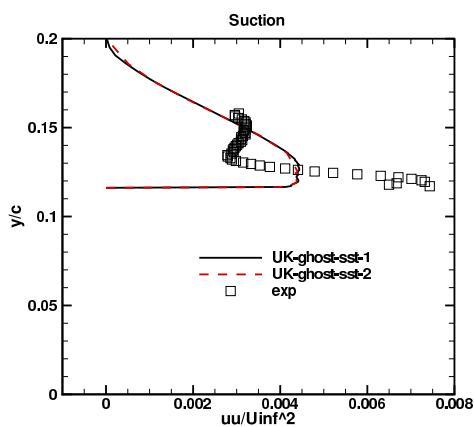
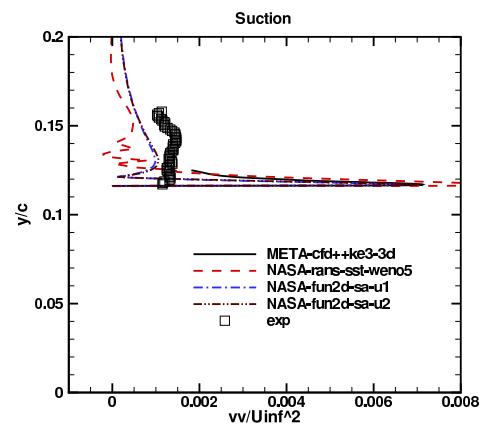
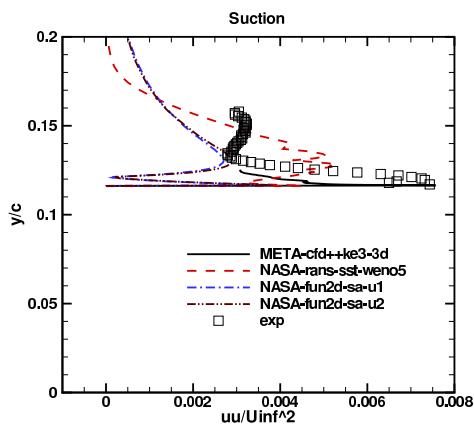
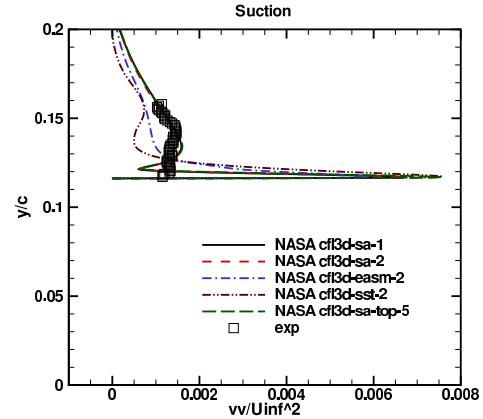
Suction-case V-velocity profiles  
at  $x/c=0.65$  (cont'd):



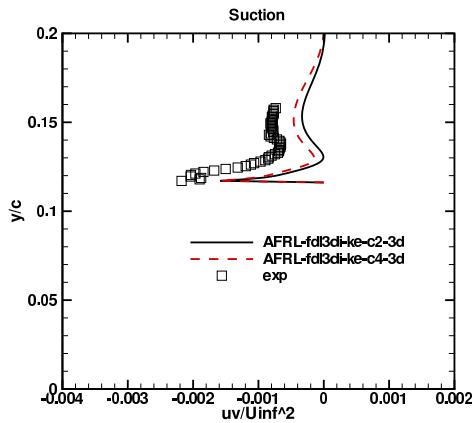
Suction-case  $u'u'$  turbulent stress profiles at  $x/c=0.65$ :



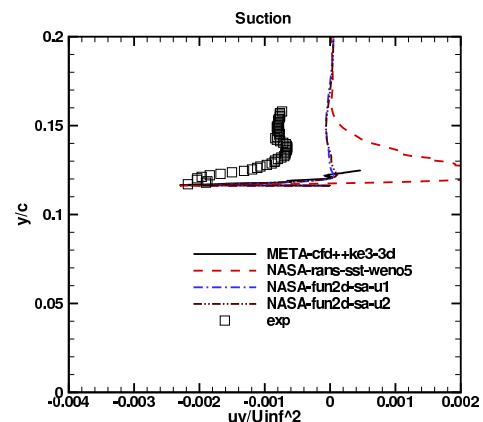
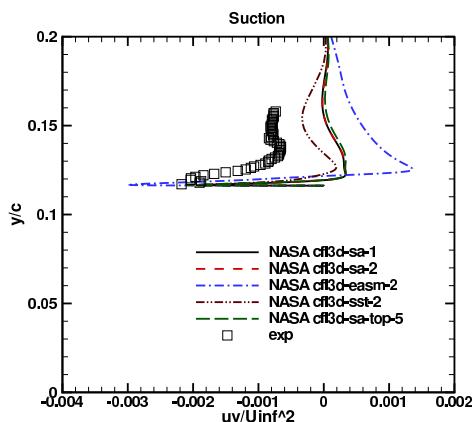
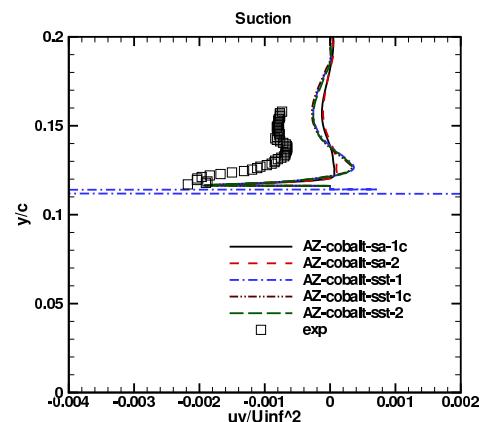
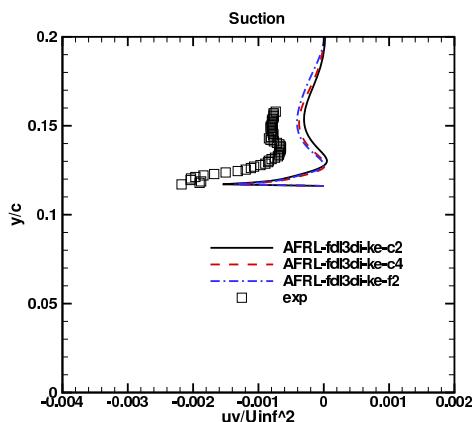
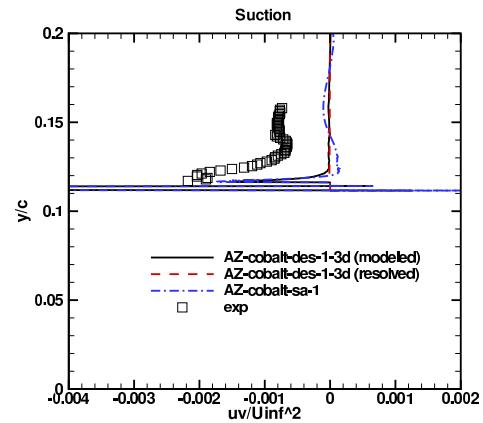
Suction-case  $v'v'$  turbulent stress profiles at  $x/c=0.65$ :



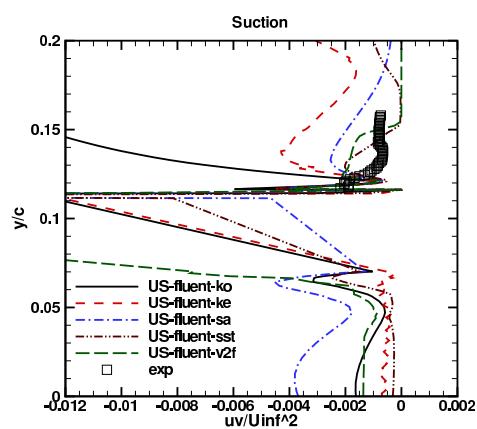
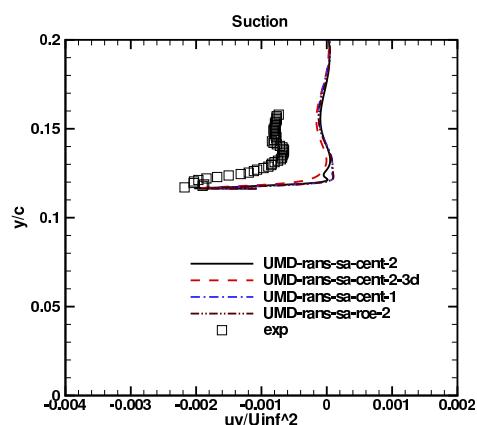
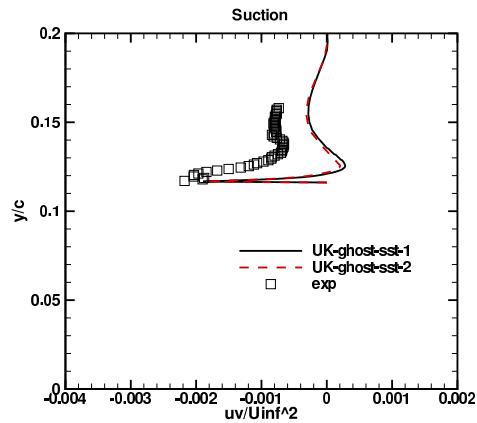
Suction-case u'v' turbulent stress profiles at  $x/c=0.65$ :



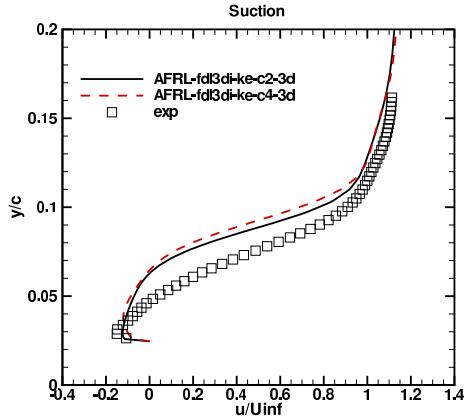
Suction-case u'v' turbulent stress profiles at  $x/c=0.65$  (cont'd):



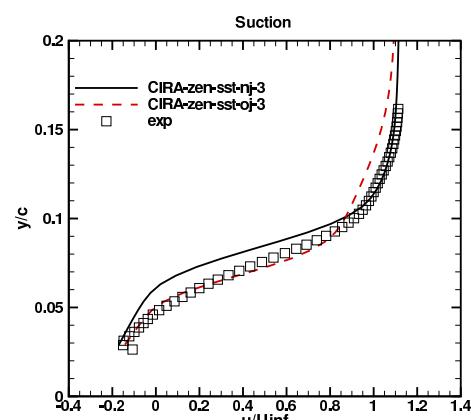
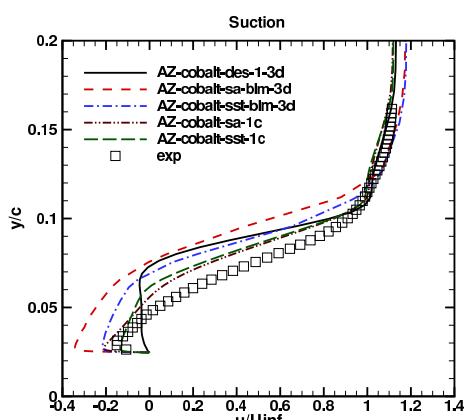
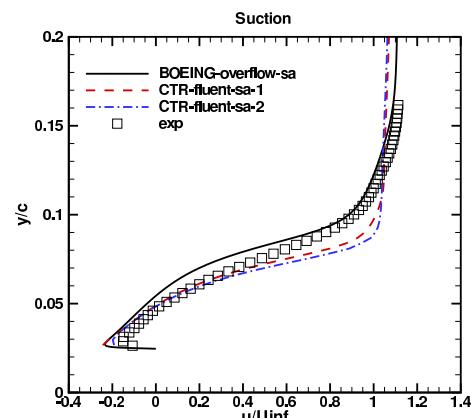
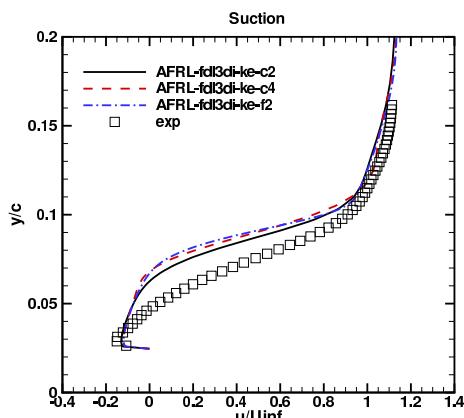
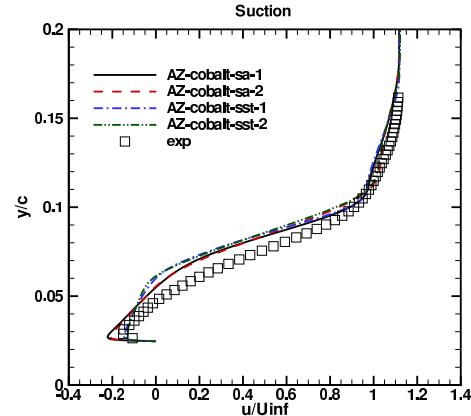
Suction-case  $u'v'$  turbulent stress  
profiles at  $x/c=0.65$  (cont'd):



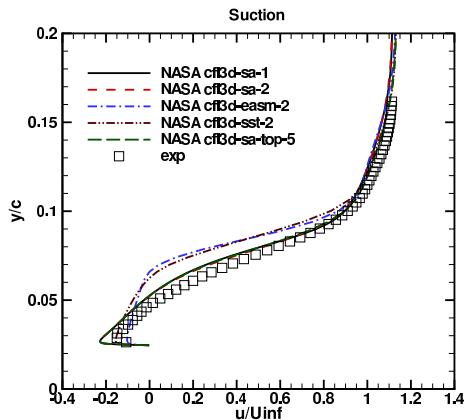
Suction-case U-velocity profiles  
at  $x/c=0.8$ :



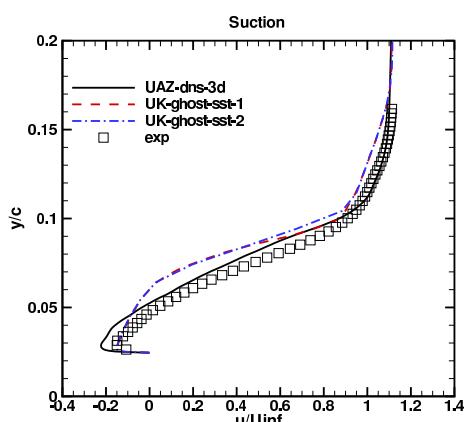
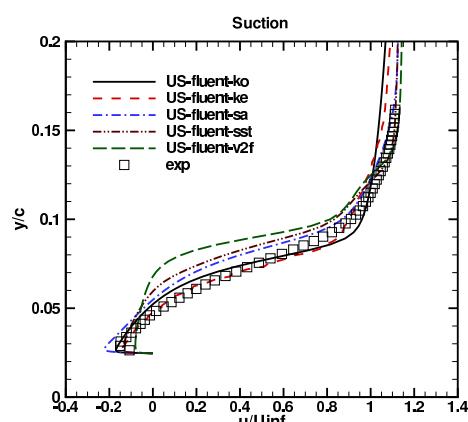
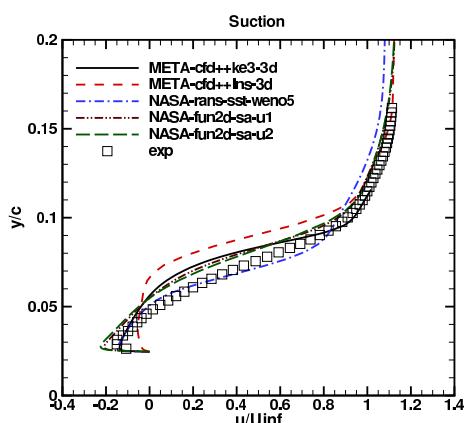
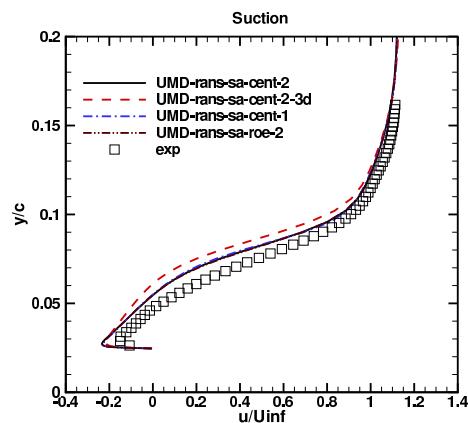
Suction-case U-velocity profiles  
at  $x/c=0.8$  (cont'd):



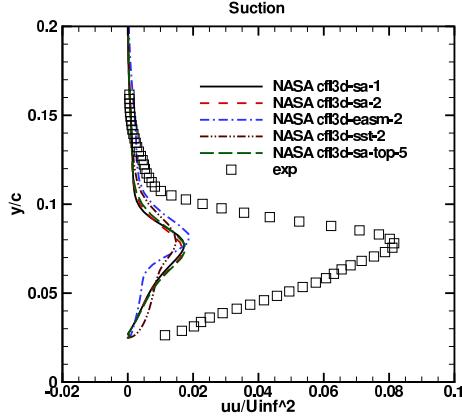
Suction-case U-velocity profiles  
at  $x/c=0.8$  (cont'd):



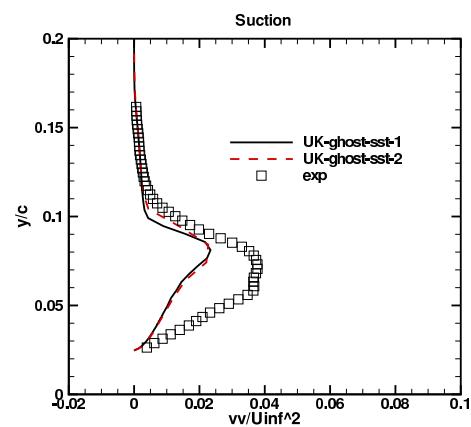
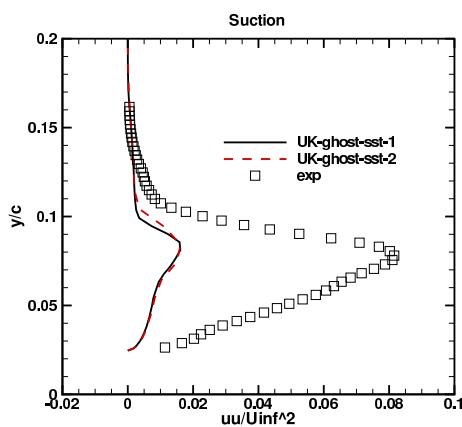
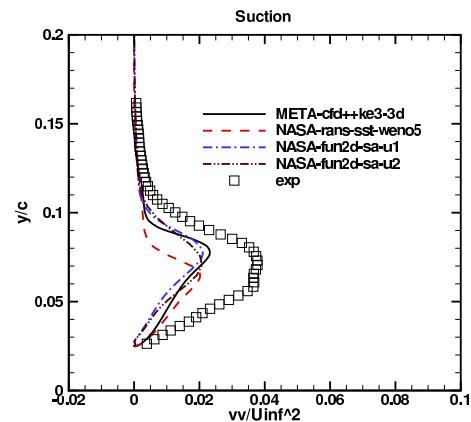
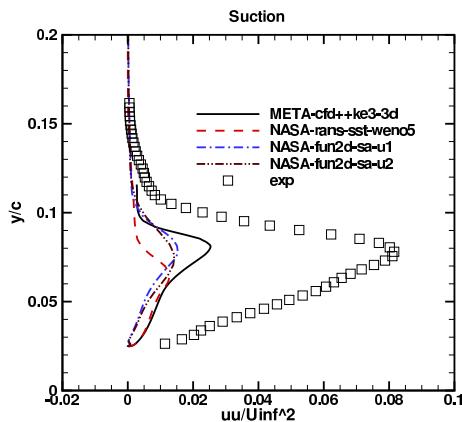
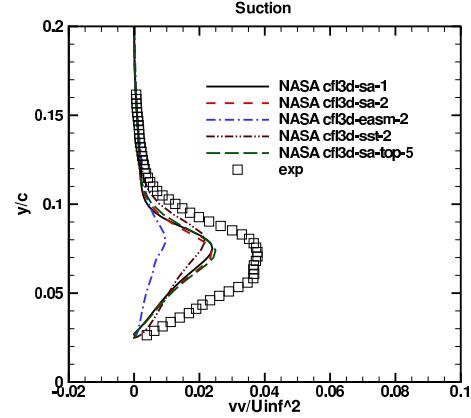
Suction-case U-velocity profiles  
at  $x/c=0.8$  (cont'd):



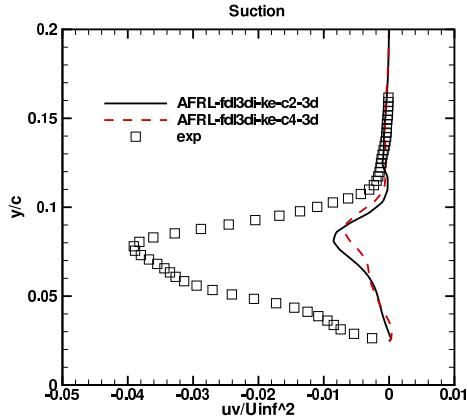
Suction-case  $u'u'$  turbulent stress  
profiles at  $x/c=0.8$ :



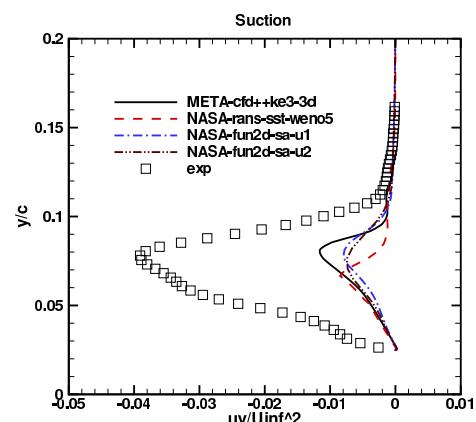
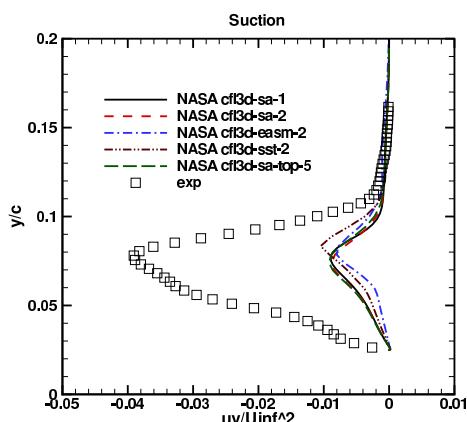
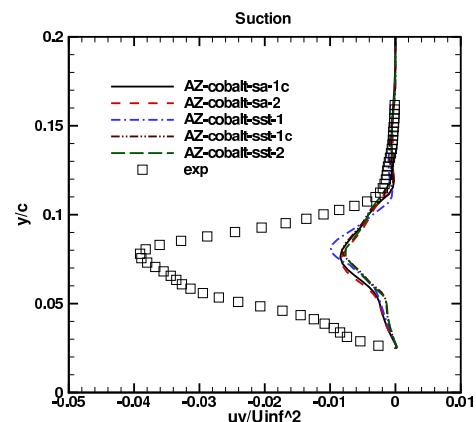
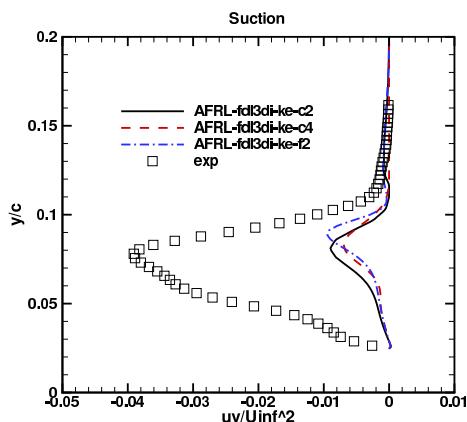
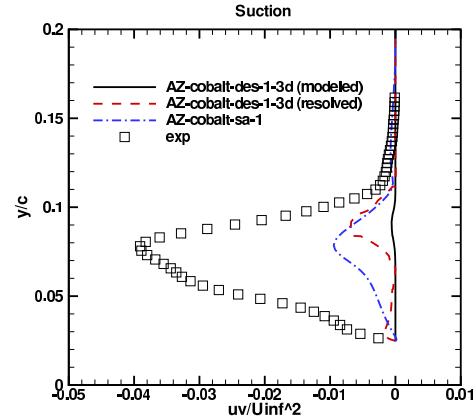
Suction-case  $v'v'$  turbulent stress  
profiles at  $x/c=0.8$ :



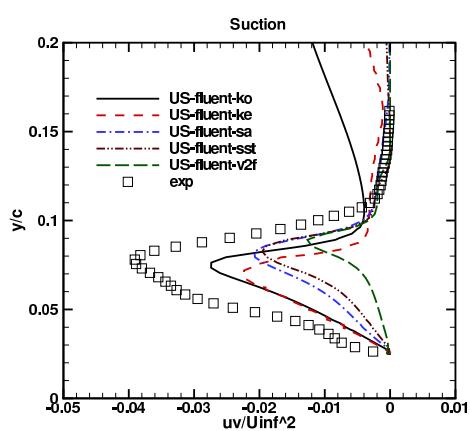
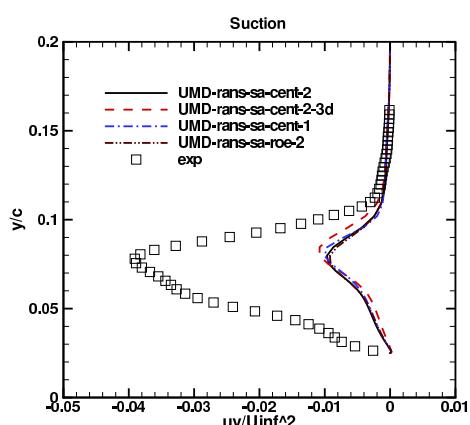
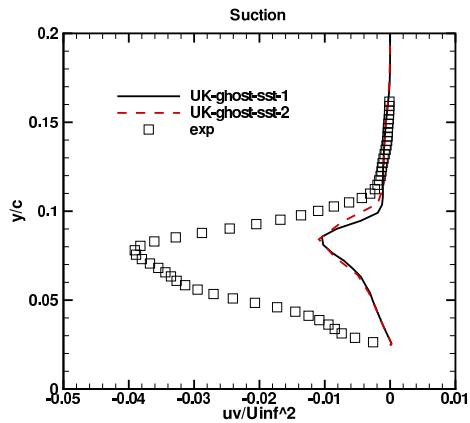
Suction-case u'v' turbulent stress  
profiles at  $x/c=0.8$ :



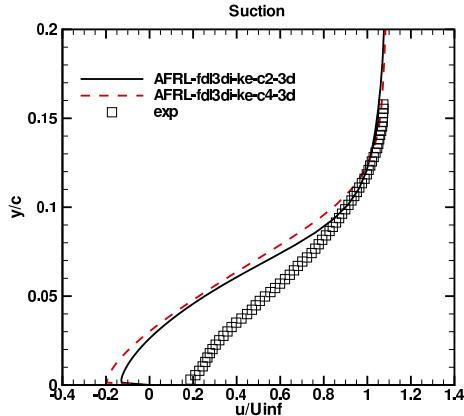
Suction-case u'v' turbulent stress  
profiles at  $x/c=0.8$  (cont'd):



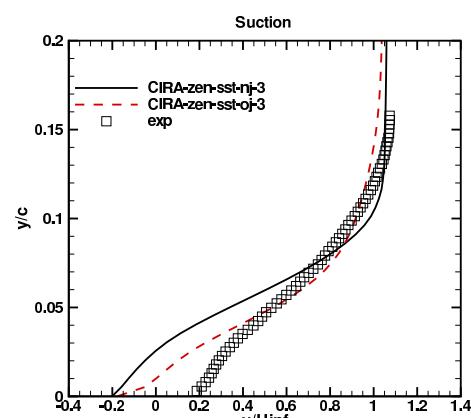
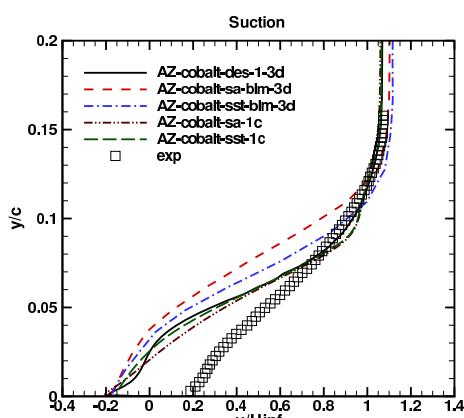
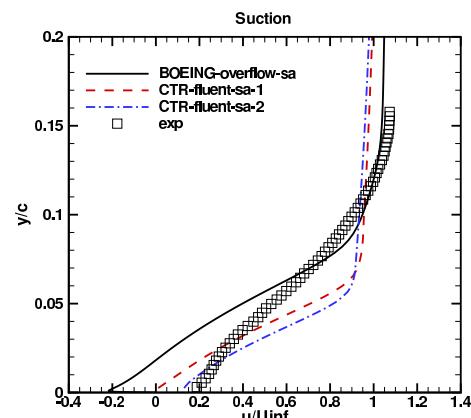
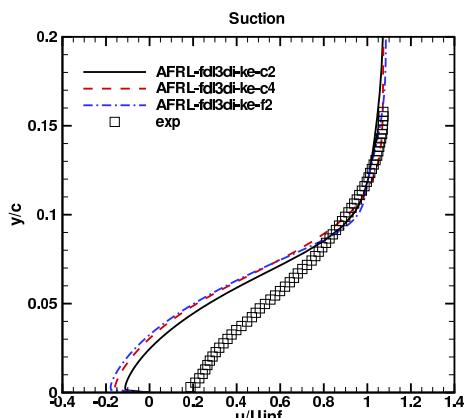
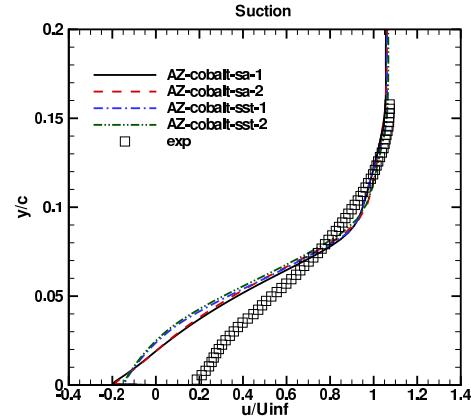
Suction-case  $u'v'$  turbulent stress  
profiles at  $x/c=0.8$  (cont'd):



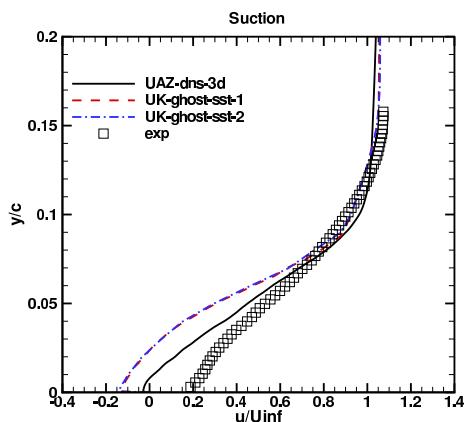
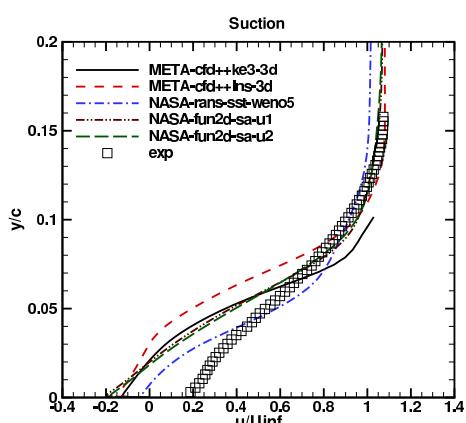
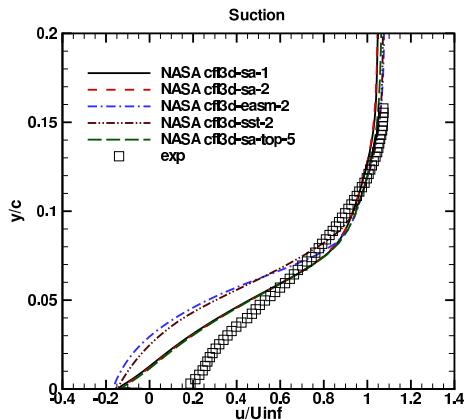
Suction-case U-velocity profiles  
at  $x/c=1.0$ :



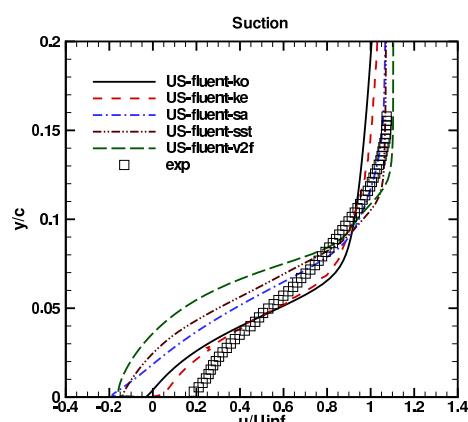
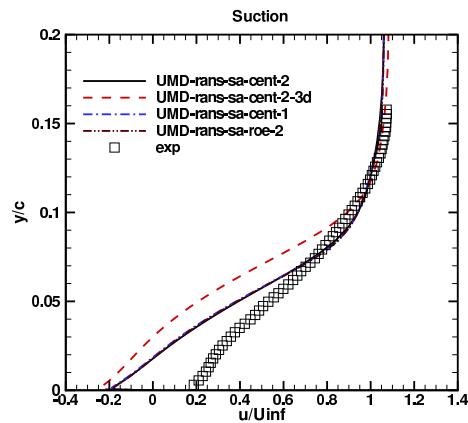
Suction-case U-velocity profiles  
at  $x/c=1.0$  (cont'd):



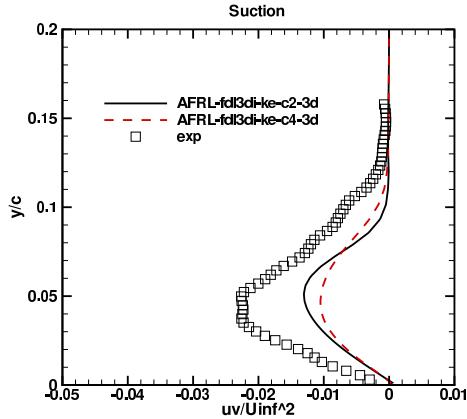
Suction-case U-velocity profiles  
at  $x/c=1.0$  (cont'd):



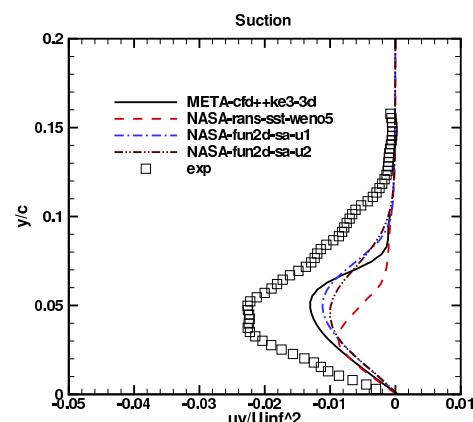
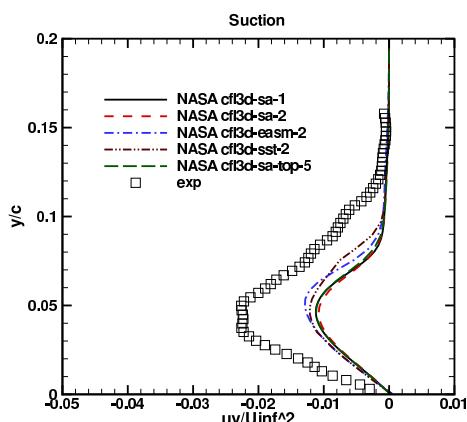
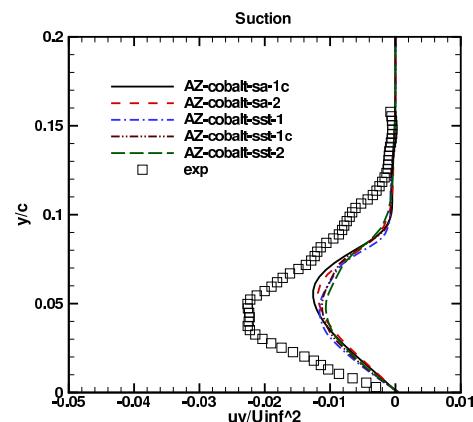
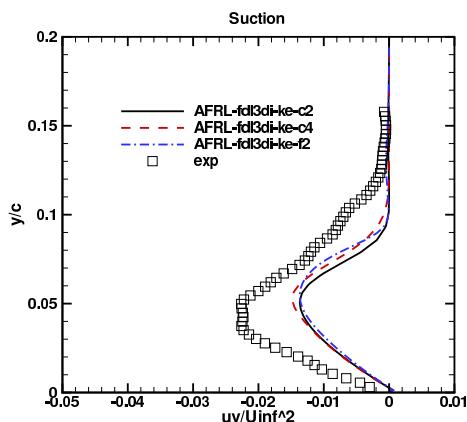
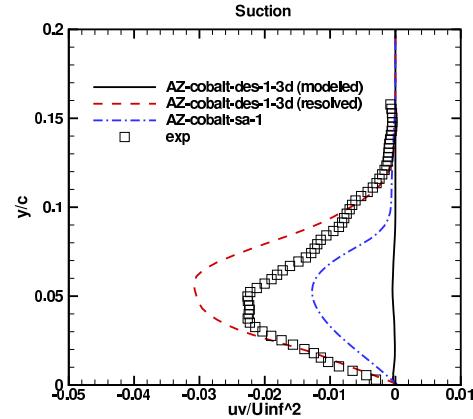
Suction-case U-velocity profiles  
at  $x/c=1.0$  (cont'd):



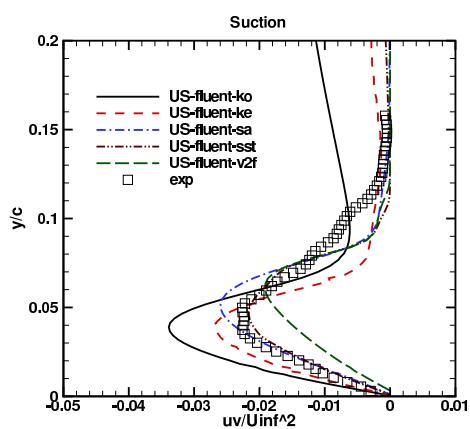
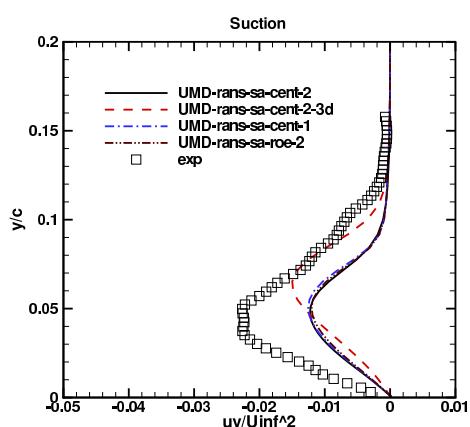
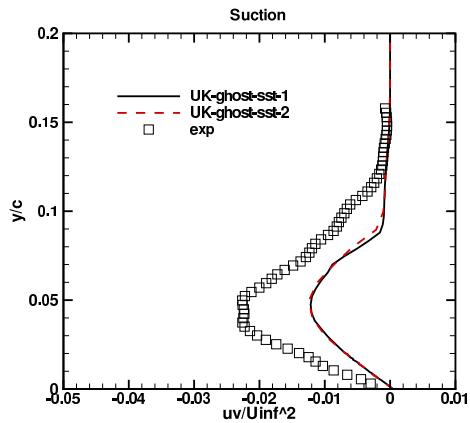
Suction-case u'v' turbulent stress  
profiles at  $x/c=1.0$ :



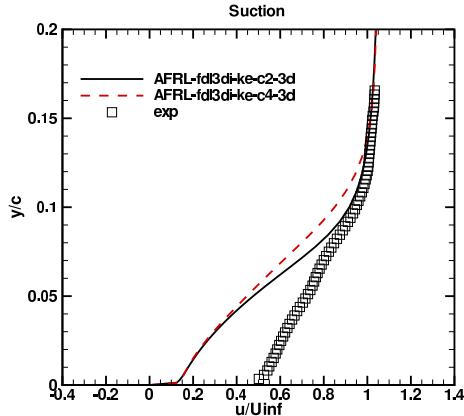
Suction-case u'v' turbulent stress  
profiles at  $x/c=1.0$  (cont'd):



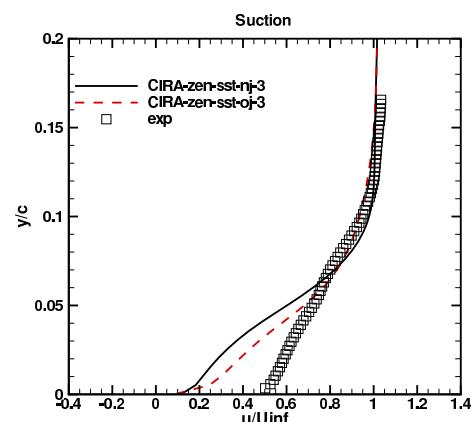
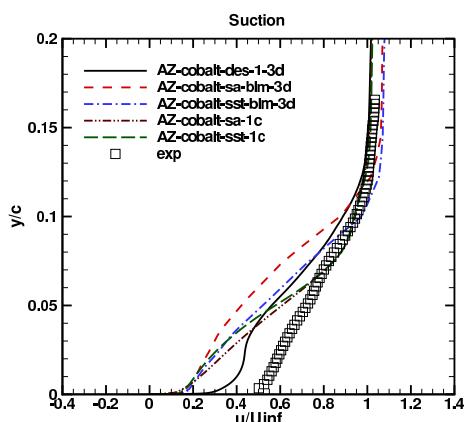
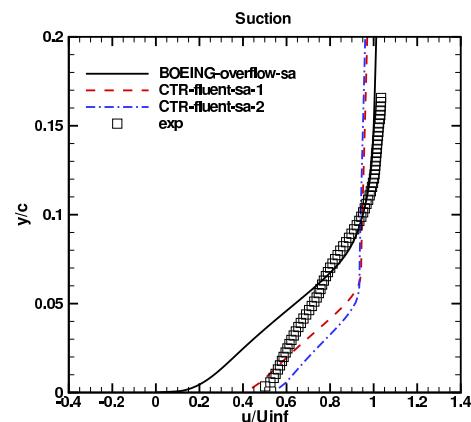
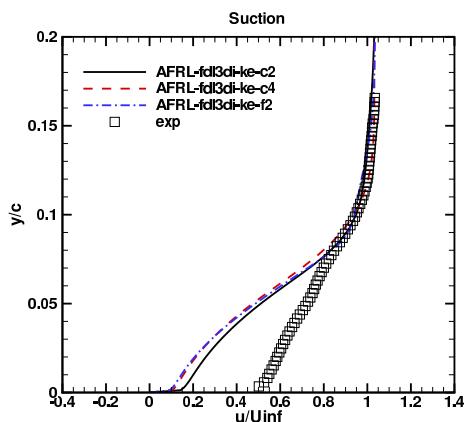
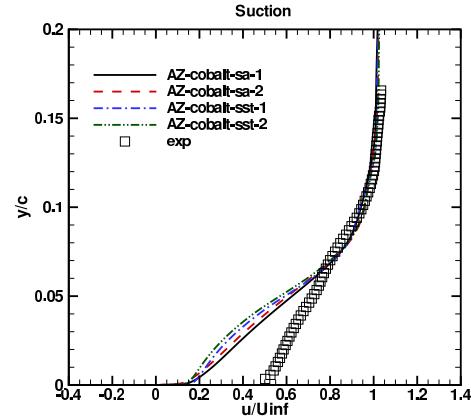
Suction-case  $u'v'$  turbulent stress  
profiles at  $x/c=1.0$  (cont'd):



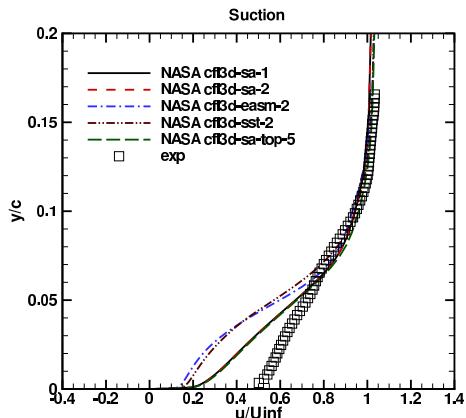
Suction-case U-velocity profiles  
at  $x/c=1.2$ :



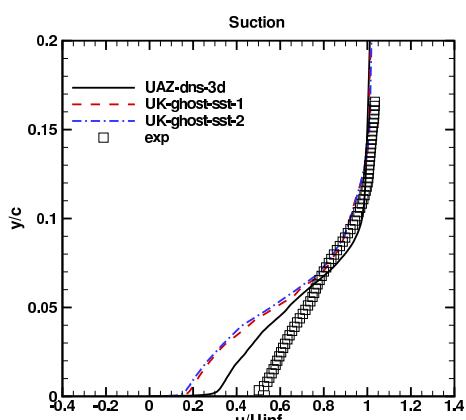
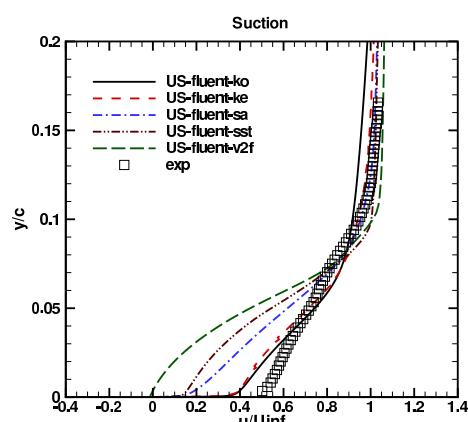
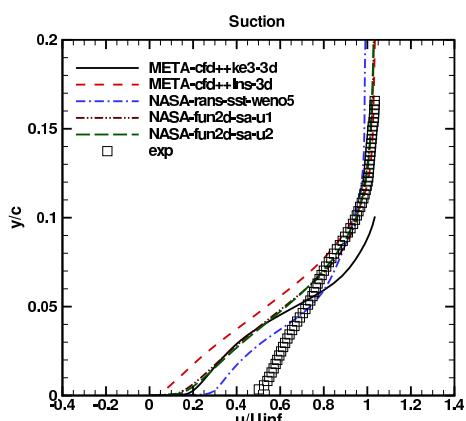
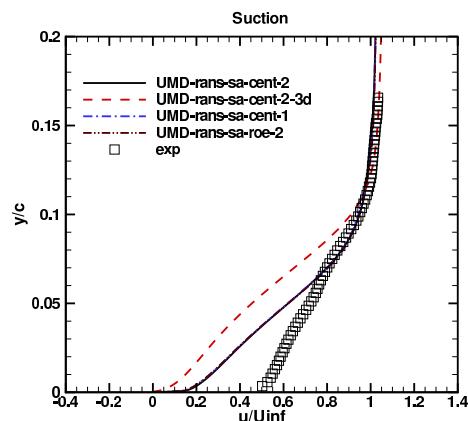
Suction-case U-velocity profiles  
at  $x/c=1.2$  (cont'd):



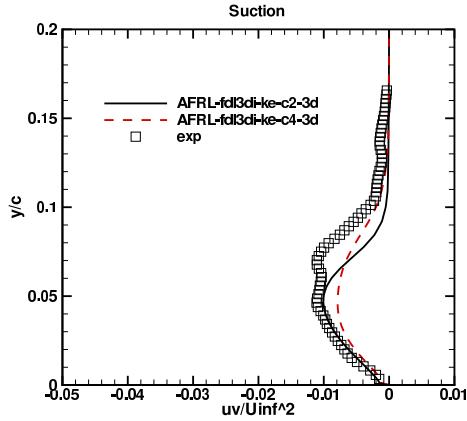
Suction-case U-velocity profiles  
at  $x/c=1.2$  (cont'd):



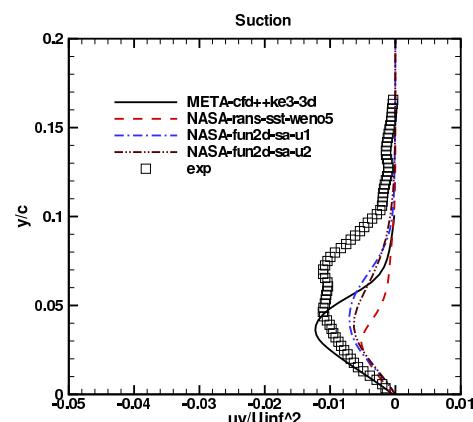
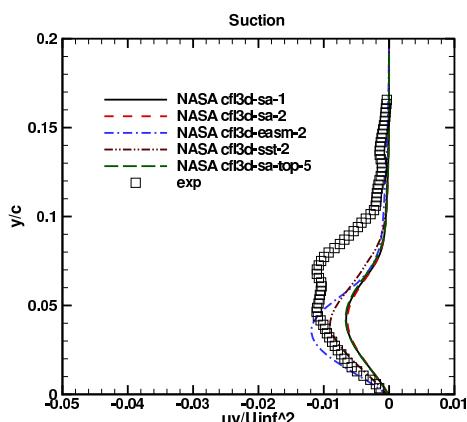
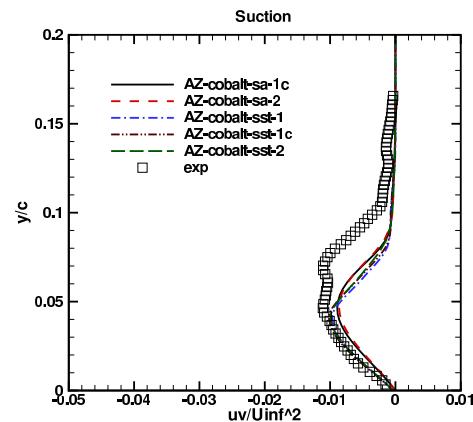
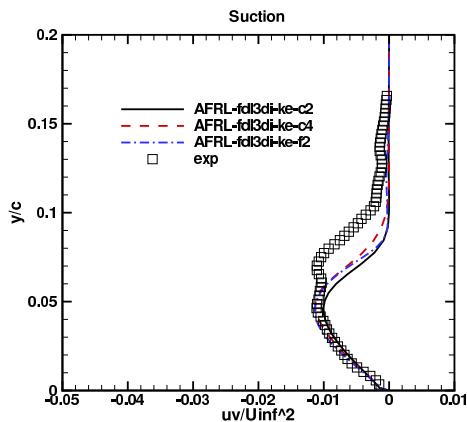
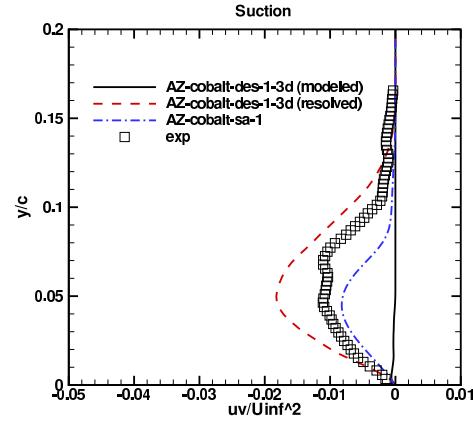
Suction-case U-velocity profiles  
at  $x/c=1.2$  (cont'd):



Suction-case u'v' turbulent stress  
profiles at  $x/c=1.2$ :



Suction-case u'v' turbulent stress  
profiles at  $x/c=1.2$  (cont'd):



Suction-case  $u'v'$  turbulent stress  
profiles at  $x/c=1.2$  (cont'd):

