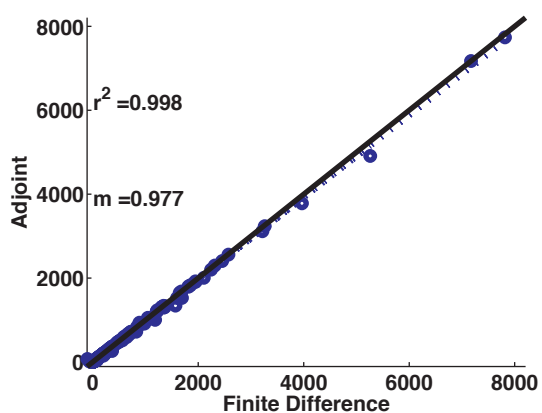
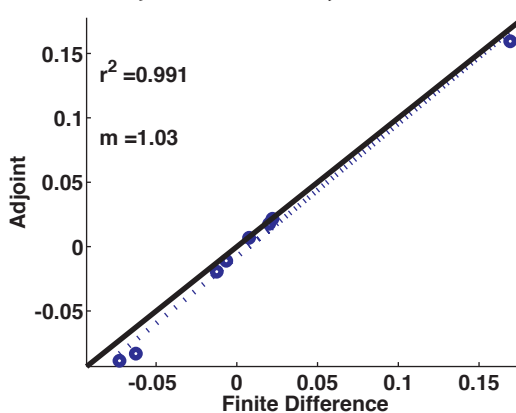


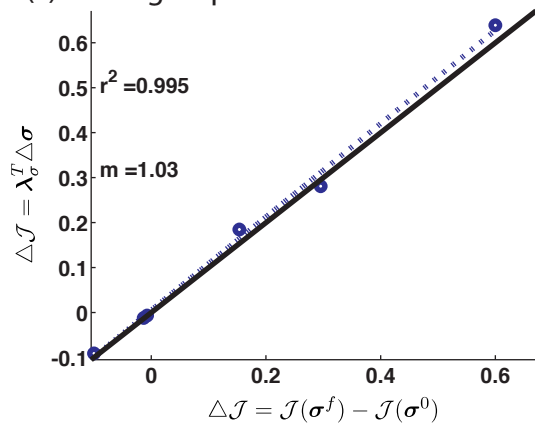
(a) 2-D adjoint sensitivity test



(b) 3-D adjoint sensitivity test



(c) Forcing response to 2030 CLE BC changes



(d) Forcing response to 2030 CLE SO2 changes

