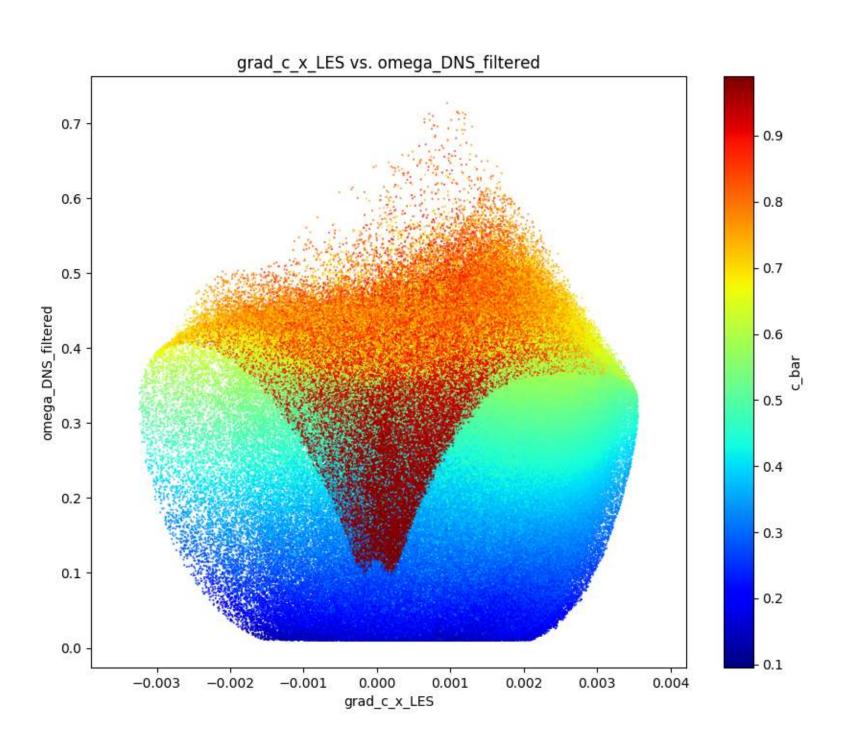
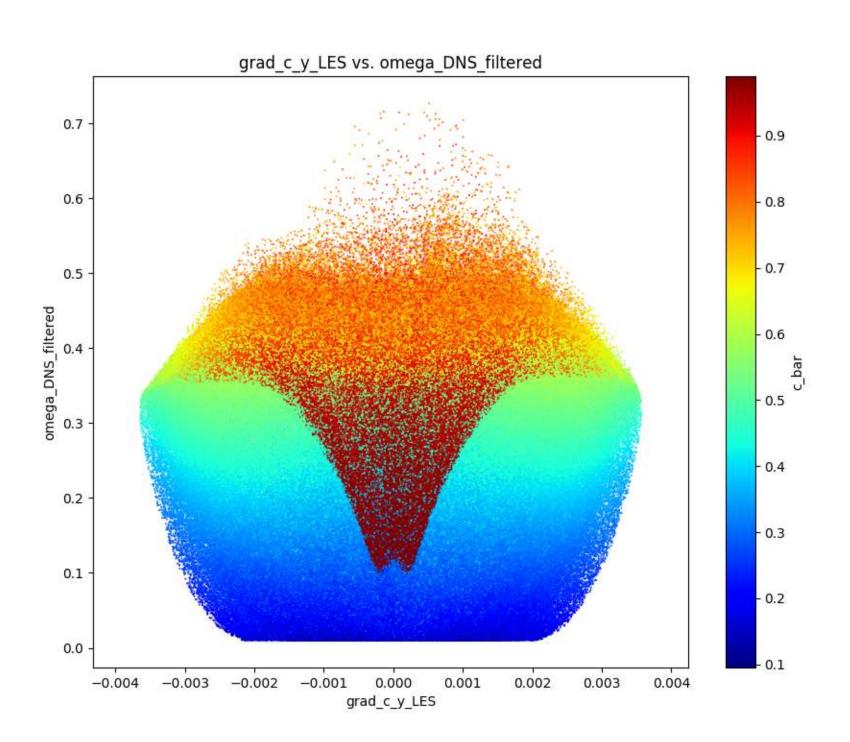


Delta_LES vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 c_bar - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 0.0002 0.0003 0.0004 0.0005 0.0006 0.0007

Delta_LES

+2.545

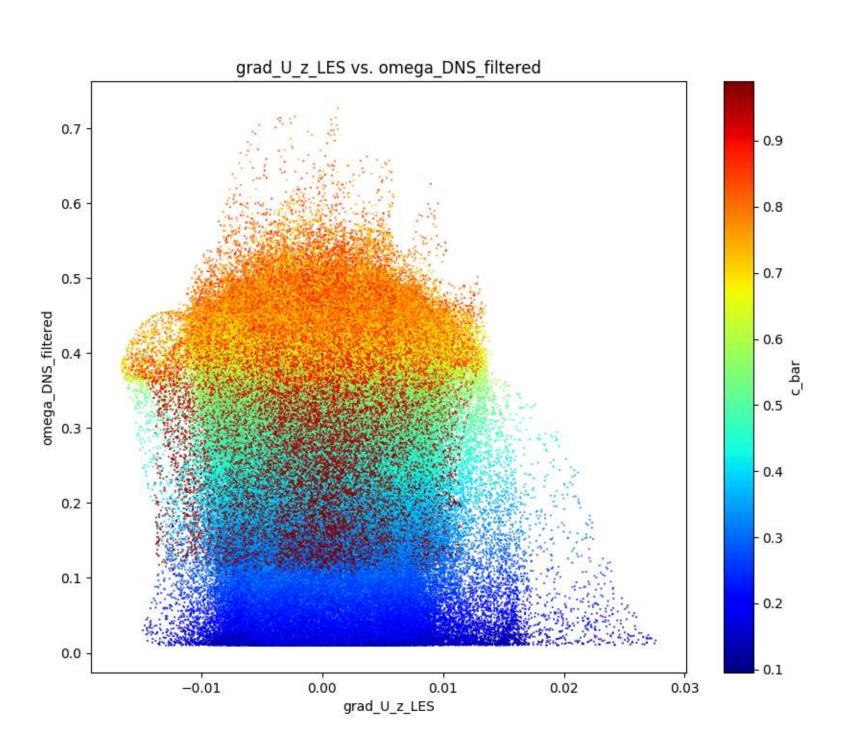




 $grad_c_z_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.004-0.003-0.002 -0.001 0.000 0.001 0.002 0.003 0.004 grad_c_z_LES

 $grad_U_x_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.010 -0.005 0.000 0.005 0.010 0.015 0.020 grad_U_x_LES

 $grad_U_y_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 0.02 0.00 0.01 -0.02 -0.01 grad_U_y_LES



 $grad_V_x_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.020 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 $grad_V_x_LES$

 $grad_V_y_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 0.020 $grad_V_y_LES$

 $grad_V_z_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 -0.020 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 $grad_V_z_LES$

 $grad_W_x_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.020 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 $grad_W_x_LES$

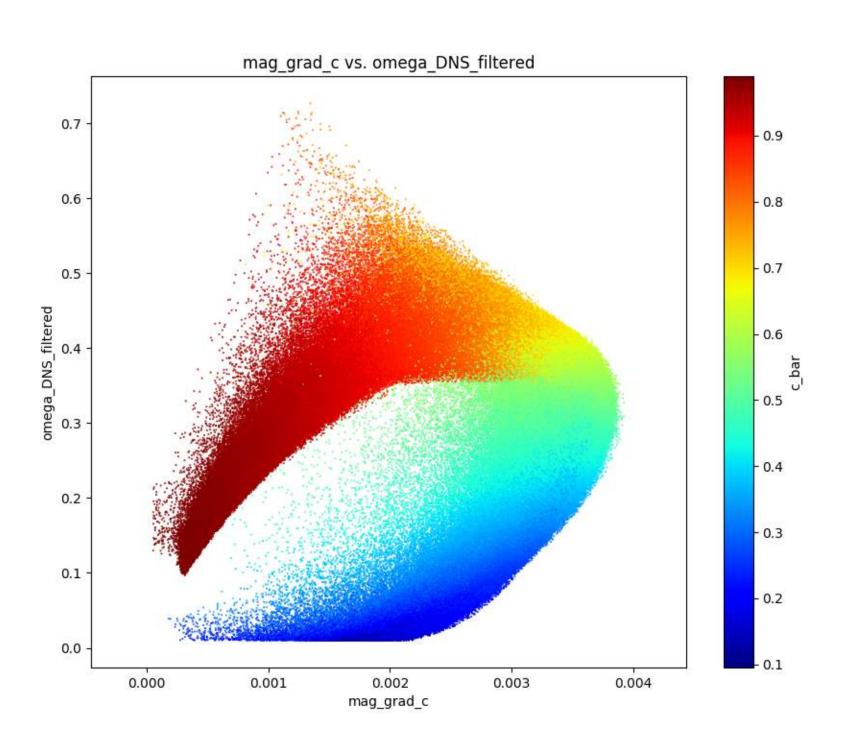
 $grad_W_y_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 -0.020 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 grad_W_y_LES

 $grad_W_z_LES\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.015 -0.010 -0.005 0.000 0.005 0.010 0.015 0.020 grad_W_z_LES

 $lambda_1\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -0.0002 0.0000 0.0002 0.0004 0.0006 0.0008 0.0010

lambda_1

lambda_3 vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 c_bar - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 -0.0003 -0.0002 -0.0001 0.0000 0.0001 0.0002 0.0003 lambda_3



mag_grad_U vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 0.025 0.005 0.010 0.015 0.020 0.030 0.035 mag_grad_U

mag_U vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 14 12 0 2 6 10 8 mag_U

 $omega_model_planar\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 0.10 0.35 0.30 0.40 0.00 0.05 0.15 0.20 0.25 omega_model_planar

SGS_flux vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 0.1 0.2 0.3 0.5 0.4 0.0 SGS_flux

sum_c vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 0.006 0.007 0.000 0.001 0.002 0.003 0.004 0.005 sum_c

 $sum_grad_U\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 0.02 0.05 0.01 0.03 0.04 sum_grad_U

 $sum_U\ vs.\ omega_DNS_filtered$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 10 15 20 -15 -10 -5 5 0 sum_U

 ${\tt U_bar\ vs.\ omega_DNS_filtered}$ 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 -5 10 15 0 5 U_bar

UP_delta vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 0.1 0.4 0.6 0.8 UP_delta 0.2 1.0 1.2 1.4 1.6

V_bar vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 0.0 V_bar 2.5 5.0 7.5 -5.0 -2.5 -7.5

W_bar vs. omega_DNS_filtered 0.7 - 0.9 0.6 - 0.8 - 0.7 0.5 omega_DNS_filtered - 0.6 0.4 - 0.5 0.3 - 0.4 0.2 - 0.3 0.1 - 0.2 0.0 - 0.1 -2 2 6 -6 -4 0 W_bar 4