1056-42-1651 Michael Dabkowski^{*} (dabkowsk@math.wisc.edu), Department of Mathematics, University of Wisconsin, 480 Lincoln Dr., Madison, WI 53706-1388. Regularization for Slightly Super Critical Surface Quasi-geostrophic Equation.

We will prove that if the power on the fractional Laplacian is close enough to 1/2 and if non-linear component is a divergence free vector field with uniformly bounded BMO norm, then we can estimate the Holder norm of the solution uniformly. We will prove this using the duality approach of Nazarov and Kiselev. (Received September 22, 2009)