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Peter Constantin, Princeton University, Fine Hall, Washington Road, Princeton, NJ 08544, and
Vlad C Vicol* (vicol@math.uchicago.edu), University of Chicago, 5734 University Avenue,
Chicago, IL 60637. *Global regularity for critical active scalar equations.*

We present a new proof of global well-posedness for the critical surface quasi-geostrophic equation. The main ingredient is a nonlinear lower bound for linear non-local operators, when evaluated at extrema. (Received December 09, 2011)