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Yuji Kodama* (kodama@math.ohio-state.edu), Department of Mathematics, Ohio State University, 231 West 18th Ave., Columbus, OH 43210. *Positive Grassmann cells and N -soliton solutions of the KP equation.* Preliminary report.

We describe N -soliton solutions of the KP equation based on the Schubert decomposition of the Grassmannian $\text{Gr}(N, 2N)$. Each N -soliton solution can be identified as a point on a positive Grassmann cell which is given by a further decomposition of the Schubert cells. This is a joint work with S. Chakravarty. (Received February 13, 2006)