1077-35-2704 **John P Albert*** (`jalbert@ou.edu`), 601 Elm Ave., Rm. 423, Norman, OK 73019, and **Santosh Bhattarai** (`sbhattarai@ou.edu`), 601 Elm Ave, Rm 423, Norman, OK 73019. *Concentration compactness and KdV-NLS solitary waves.*

We prove existence and dynamic stability of solutions which represent the coupling of solitary waves to ground states for a system of coupled KdV and nonlinear Schrodinger equations. The proof involves establishing the joint subadditivity in both constraint variables of a two-parameter family of constrained variational problems. The method is simpler and leads to more general results than that employed previously by Albert and Angulo in [Proc. Roy. Soc. Edinburgh Sect. A 133 (2003), no. 5, 987–1029]. (Received September 22, 2011)