

SPECTRAL PROPERTIES OF THE LAX OPERATOR FOR THE
MATRIX NONLINEAR SCHRÖDINGER SYSTEM

M. Klaus

Department of Mathematics
Virginia Polytechnic Institute and State University
Blacksburg, VA 24061, USA
klaus@math.vt.edu

We discuss spectral properties of the AKNS system associated with the matrix nonlinear Schrödinger system. In particular we consider systems whose coefficients have nontrivial asymptotics. We discuss the location and existence of eigenvalues and we obtain some new results that generalize earlier ones for systems whose coefficients decay at infinity.