Nonlinear susceptibility of the dipolar glass MOSHE SCHECHTER, PHILIP STAMP, University of British Columbia — Glassy behavior is seen in various systems, among which are structural glasses, electron glasses, spin glasses and electric dipolar glasses. The latter two seem to share the same effective Hamiltonian. However, experimentally some fundamental differences are seen between these two systems, most notably the divergence of the nonlinear susceptibility in the spin glass system and its absence in the electric dipolar glass. Here we discuss the similarities and differences between these two systems leading to the above mentioned phenomenon.