De Witt L. Sumners* (sumners@math.fsu.edu), Department of Mathematics, Florida State University, Tallahassee, FL 32304, and Renzo L. Ricca and Irma I. Cruz-White. Helicity of Seifert Framed Defects.

We provide a topological proof that under Seifert framing the helicity of line defects that arise in optics, condensates and excitable media is zero. We prove that when each of the individual helicities of the components of a defect link is zero, then the link is Seifert-framed. As corollary the linking exclusion principle is proven, and that total twist remains conserved under change of topology due to anti-parallel reconnection of defect strands. (Received August 10, 2020)