1061-32-148 **Suzanne Lynch Hruska***, University of Wisconsin Milwaukee, PO Box 413, Milwaukee, WI 53211, and **Roland K. W. Roeder**. *Topology of Fatou Components for Endomorphisms of $\mathbb{CP}^2$: linking with the Green's Current.*

Little is known about the global topology of Fatou components for holomorphic endomorphisms $f : \mathbb{CP}^2 \to \mathbb{CP}^2$. We develop a type of linking number between closed loops in the Fatou set of f with the Green's current T, which forms the complement of the Fatou set. Using these linking numbers we establish that many classes of endomorphisms have Fatou components with infinitely generated first homology; for example, polynomial endomorphisms of $\mathbb{CP}^2$ for which the restriction to the line at infinity is hyperbolic and has disconnected Julia set, and polynomial skew products of $\mathbb{CP}^2$ such that the vertical Julia set in an appropriate slice is disconnected. We conclude with some concrete examples and questions for further study. (Received April 12, 2010)