

# ON A FAMILY OF ENDOMORPHISMS ON HYPERCOMPLEX MANIFOLDS OF CURVES

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ABSTRACT. Let  $Z$  be a complex manifold endowed with a holomorphic projection  $\pi: Z \rightarrow T\mathbb{P}^1$  and a real structure  $\sigma: Z \rightarrow Z$  covering the antipodal map of  $\mathbb{P}^1 \cong S^2$ . We will define a manifold  $M$  consisting of "nice" curves  $S \subset Z$  (i.e. curves that satisfy some reality and cohomological stability conditions) and investigate the main features of its *hypercomplex* geometry.

Our interest in such structures is motivated by the theory of *Twistor Spaces*, *Magnetic Monopoles* and *Nahm Equations*.

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