Erratum: Functions of multivectors in 3D Euclidean geometric algebra via spectral decomposition (for physicists and engineers)

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There is an incorrect formula in the chapter 2. Functions of multivectors

\[ f(\pm u) = f(\pm 1)u. \]

From \( M = M_+ u_+ + M_- u_- \) and \( f(M) = f(M_+)u_+ + f(M_-)u_- \) we have

\[ f(\pm u) = f(1)u + f(0)u. \]

We see now that the logarithm of idempotents is not defined, since \( \log(0) \) is not defined. There is another form of the logarithm formula

\[ \log M = \log |M| + \phi \hat{F}, \]

however, we have \( |u_+| = \sqrt{u_+u_-} = 0 \), which leads to the same conclusion.