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Elden Elmanto* (eldenelmanto@gmail.com), 2033 Sheridan Road, Evanston, IL 60208, and **Jay Shah**. *Some Remarks on Real Topoi and Real Motives*. Preliminary report.

There are strong analogies between C_2 -equivariant homotopy theory and motivic homotopy theory over the reals. In the former theory, one can describe the ∞ -category of genuine C_2 -spectra in terms of Borel equivariant spectra and classical spectra using the language of “recollement.” We examine these analogies in the setting of algebraic geometry, thinking of the former as “etale” and the latter as “real-etale.” Pursuing this line of thought, two pictures seem to emerge.

In the unstable situation, taking the homotopy C_2 -fixed points of the ∞ -topos of etale sheaves on a $X_{\mathbb{C}}$ where X is an \mathbb{R} -variety gives the real-etale ∞ -topos of X . This enhances results of Scheiderer to a homotopy coherent setting. In the stable case, we give a description of the derived category of Voevodsky motives in terms of etale motives, real etale motives and “b-motives” using Suslin’s rigidity and Bachmann’s theorem on real etale motivic homotopy. Time permitting, we also speculate on further generalizations of these results.

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