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Chenxi Wu* (wuchenxi2013@gmail.com), **Giulio Tiozzo** and **Kathryn Lindsey**. *Topological Entropy on Hubbard Trees*.

The dynamics of post critically finite complex quadratic maps on their Julia sets can be encoded by their Hubbard Trees, the topological entropy of the induced map on Hubbard trees, which are called core entropy, have been extensively studied and has connection to important properties of the Mandelbrot set. With Giulio Tiozzo and Kathryn Lindsey we found a new characterization of the Galois conjugate of the exponents of core entropy for certain subsets of the Mandelbrot set, which provides a necessary condition for an algebraic integer to be the exponent of such a core entropy. The main techniques we used are spectral theory of infinite graphs, kneading theory and symbolic dynamics. (Received August 10, 2021)