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Liling Ko* (lko@nd.edu). *Bounding lattices below fickle degrees*. Preliminary report.

The ability to embed lattices below a computably enumerable (c.e.) Turing degree seems to be characterized by the fickleness of that degree. By earlier work it is known that the fickleness at the ω and ω^ω levels are characterized by critical triples (or L_7) and the 1-3-1 lattice, respectively. However no lattice has been found to characterize the ω^2 or ω^n levels. We explore candidate lattices, including infinite ones, and seek to understand the challenges faced in finding an ω^n level lattice and in embedding infinite lattices. (Received September 13, 2020)