1092-06-330 **Peter Jipsen*** (`jipsen@chapman.edu`), Chapman University, School of Computational Sciences, One University Drive, Orange, CA 92866, and **Nathan Lawless** (`lawle108@mail.chapman.edu`). *An orderly algorithm to enumerate (semi)modular lattices.*

Heitzig and Reinhold [2002] developed an efficient algorithm to enumerate all finite lattices up to isomorphism and used it to count the number of lattices up to size 18. Here we present an improvement and adaptation of this algorithm which is used to construct all modular lattices up to size 23, all semimodular lattices up to size 22 and all lattices up to size 19. We also use this approach to enumerate other types of lattices such as semidistributive, two-distributive and selfdual lattices. Additionally we prove that up to isomorphism there are at least 2^{n-3} modular lattices of size n. (Received August 13, 2013)