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Mindy Beth Capaldi* (mindy_capaldi@ncsu.edu), North Carolina State University,
Department of Mathematics, Campus Box 8205, Raleigh, NC 27695. *L_∞ Algebras and Symmetric
Braces.*

This presentation introduces L_∞ algebras, symmetric braces, and L_∞ morphisms, provides examples of each, and then shows how we can use L_∞ morphisms to derive new L_∞ algebras from existing ones. The proof that we do indeed have a new L_∞ algebra is in the context of symmetric brace algebras. We can demonstrate this process with a concrete example where we start with a small, but nontrivial, L_∞ algebra as well as a simple set of morphisms. (Received September 14, 2009)