1047-46-134   **Kevin Wildrick*** (`kevin.wildrick@jyu.fi`) and **Ellen Veomett**. *Metric cotype and quasisymmetric embeddings.* Preliminary report.

Type and cotype play a prominent role in the local theory of Banach spaces and the theory of geometric embeddings into Banach spaces. Recent work of Mendel and Naor provides a notion of cotype for metric spaces that coincides with the classical notion when restricted to Banach spaces. They also show that cotype does not decrease under a quasisymmetric embedding of one infinite dimensional Banach space into another. However, little is known about the metric cotype of even very simple non-linear spaces. We discuss whether metric cotype is a quasisymmetric invariant in general, and give results that determine the metric cotype of certain key examples. (Received January 25, 2009)