1125-I1-3125 **James M Henle*** (`jhenle@smith.edu`). *The Art that is Mathematics.* Preliminary report.
I argue that one aspect of mathematics constitutes an art, an art that can take its place among the fine arts—painting, music, literature, etc. I propose that the objects of this art are mathematical structures.

Let me be clear about what I am not doing. I am not discussing mathematics in the service of art, or mathematics inspiring or enabling art. The sort of art exhibited at this conference, for example, while it is indeed art, is not what I call the art of mathematics. I am arguing for mathematics itself as art.

I am also not simply arguing that mathematics is beautiful. I am setting up a framework and identifying specific objects as the works of art. There are issues here of the philosophy of art (What is art? What is an artist?), the philosophy of mathematics (Are mathematical structures created or discovered?), and the history of mathematics (Who is or was a mathematical artist? Which mathematicians have been motivated primarily by aesthetic considerations?). (Received September 21, 2016)