1037-57-343 Elena Bogdan Pavelescu* (elenabn@math.upenn.edu), 209 S 33rd Street, Philadelphia, PA 19104. Braids and open book decompositions. Preliminary report.

A well known theorem of Alexander's says that any knot in \mathbb{R}^3 can be braided about the z-axis. We prove that this holds true in any closed, oriented 3-manifold, using the fact that such a manifold admits an open book decomposition. We also look at the transverse case. This result is used to give an alternate proof of Eliashberg's theorem on the transversal simplicity of the unknot in a tight contact structure that involves only braid theoretical techniques. (Received February 05, 2008)