1077-05-1318 **Alan Frieze*** (alan@random.math.cmu.edu), 5000 Forbes Avenue, Pittsburgh, PA 15217.
Analysis of a simple 2-matching algorithm on a random graph. Preliminary report.

We describe and analyse a simple greedy algorithm that finds a good 2-matching M in a random graph G. A 2-matching is a spanning subgraph of maximum degree two and G is drawn uniformly from graphs with vertex set [n], cn (c>=15) edges and minimum degree at least three. By good we mean that M has O(log n) components. We then use this 2-matching to build a Hamilton cycle. (Received September 19, 2011)