1041-05-302   **Anthony J Guttmann*** (`tonyg@ms.unimelb.edu.au`), **John Dethridge**, **Tim Garoni** and
Iwan Jensen. *Subsets of self-avoiding walks and polygons.*

Given our inability to solve the self-avoiding walk or polygon problem, even in two-dimensions, it is useful to define simpler models in the hope that we can do better, or at least gain some insight into the SAW problem. We describe four simplifications, prudent walks, boundary walks, quasi-prudent walks and non-self-trapping walks. We provide a variety of exact and numerical results for these walks, on the square lattice, and also for the polygon subset of the walks. We also give some numerical results for three-dimensional versions of these models. (Received August 13, 2008)