1067-00-1397   **Theodore Kolokolnikov*** (`tkolokol@mathstat.dal.ca`), Dalhousie University, Halifax, NS B3H 3J5, Canada. *Explicit results for the swarm aggregation model in any dimension.*

In a recent work by Bernoff and Topaz, an exact solution for the swarm model involving a Morse force was derived in one dimension. On the other hand, there are no known (non-trivial) examples of exact solutions to the swarm model in two or higher dimensions. We derive a new such solution for a certain class of attractive-repulsive forces. We also study its stability in one and two dimensions.

Joint work with Razvan Fetecau. (Received September 20, 2010)