

In my talk I will elaborate on our latest leader election result in the amoebot model (which appeared in ALGOSENSORS 2017).

In the corresponding paper, we present an efficient local-control algorithm which solves the leader election problem in  $O(C)$  asynchronous rounds with high probability, where  $C$  is the circumference of the particle system (i.e., the number of particles on the outer boundary).

Our algorithm relies only on local information (e.g., particles do not have unique identifiers, any knowledge of  $n$ , or any sort of global coordinate system), and requires only constant memory per particle.