1154-35-2432 **Stefania Patrizi*** (spatrizi@math.utexas.edu) and **Luis Caffarelli**. *A local vs nonlocal segregation model.*

Segregation phenomena occurs in many areas of mathematics and science: from equipartition problems in geometry, to social and biological processes (cells, bacteria, ants, mammals) to finance (sellers and buyers). Segregation problems model a situation of high competition for resources and involve a combination of diffusion and annihilation between populations. We present a new model in which two competing species have the same population dynamics but different dispersal strategies: one species moves following a local diffusion while the other species adopts a nonlocal diffusion. This is a joint work with Luis Caffarelli. (Received September 17, 2019)