1117-53-317 **Dan Cristofaro-Gardiner**, **Tara Holm**, **Alessia Mandini** and **Ana Rita Pires*** (apissarrapires@fordham.edu). *Infinite staircases in symplectic embedding problems.* Preliminary report.

McDuff and Schlenk determined when a four-dimensional symplectic ellipsoid can be symplectically embedded into a four-dimensional ball, and found that if the ellipsoid is close to round, the answer is given by an "infinite staircase" determined by the odd index Fibonacci numbers, while if the ellipsoid is sufficiently stretched, all obstructions vanish except for the volume obstruction. Infinite staircases have also been found when embedding ellipsoids into polydisks (Frenkel–Muller) and into the ellipsoid E(2,3) (Cristofaro-Gardiner–Kleinman). In this talk, we will see how the sharpness of ECH capacities for embedding of ellipsoids implies the existence of infinite staircases for these and three other domains. (Received January 17, 2016)