MATRIX ITERATIONS AND SADDLE-POINT SYSTEMS: 
FROM OPTIMIZATION TO NAVIER-STOKES AND BACK

Iterative methods can be the only feasible way to tackle linear(ized) problems of very large size. We will give a brief description of candidate methods and then focus on the specific but widely arising case of saddle-point systems: systems which arise in any problem with constraints. We will show similar approaches for constrained optimization and incompressible Navier-Stokes problems and indicate how they can be combined for design problems involving fluid flows.

Refreshments will be served in PSA 206 at 3:30 p.m.