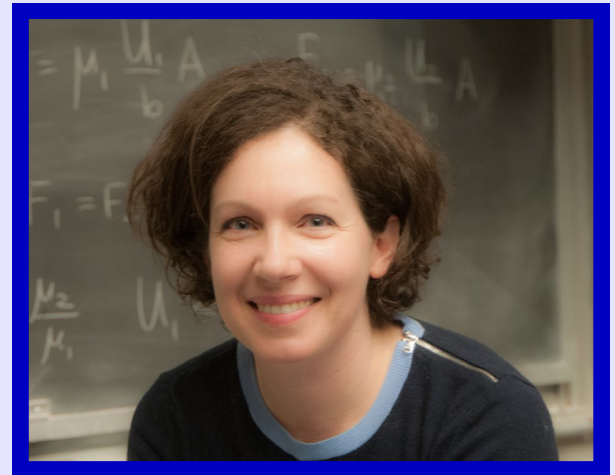


Engineering Sciences and Applied Mathematics**ESAM Seminar Series Presents:****Complex fluid interfaces in electric fields: belted drops, patchy membranes, and vesicle drums****Presented by:****Professor Petia Vlahovska**
Brown University

I will present some of our recent experimental observations on “complex” fluid-fluid interfaces - surfactant-laden and particle-covered drops, and vesicles (drops encapsulated with lipid bilayer membranes) - in uniform DC and AC electric fields. The coupling of the electric field induced flow and complex mechanics of the interface drives peculiar (and still to be explained) behaviors: drum-like or asymmetric dumbbell shapes of a vesicle; domain nucleation and dissolution in multicomponent membranes; particle assembly in dynamic vortices; drop wobbling. Implications to the design of patchy particles and electrorheology of emulsions will be discussed.

Monday, April 6, 4:00 PM
Technological Institute M416For further information see <http://www.esam.northwestern.edu>Engineering Sciences and Applied Mathematics
2145 Sheridan Road, M426, Evanston, IL 60208 (847) 491-3345