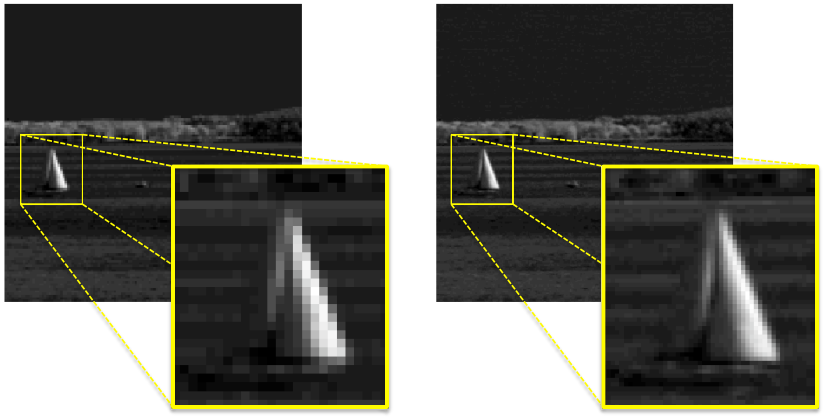
Mathematics Lecture Series, Spring 2014
Fresno State

DR. ROUMMEL MARCIA

University of California, Merced

"Linear algebra, sparsity, and compressed sensing"



Friday, February 14th, 2014 from 3:00 to 4:00 p.m.
Science 2 ~ Room 307

In numerical linear algebra, linear systems of equations, $Ax = b$, are often solved by exploiting the structure or sparsity of the coefficient matrix A. In the recently developed framework called *compressed sensing in signal processing*, the sparsity and/or structure of the *solution*, x, and not necessarily that of A, are exploited. This framework has yielded very interesting results and has become a highly active area of research within the last few years for mathematicians, computer scientists, statisticians, and engineers because of its potential to greatly reduce the amount of data we have to collect to infer vast amounts of information. In this talk, we will consider some of the mathematical challenges in solving compressed sensing problems and in applying them to practical applications like video and medical imaging.

If you need a disability-related accommodation or wheelchair access information, please contact Carmen Caprau at (559) 278-4997 or e-mail ccaprau@csufresno.edu. Requests should be made at least one week in advance of the event.