

Many Cheerful Facts

Organizer: Jeffrey Galkowski
Wednesday, 3:00pm-4:00pm, 891 Evans

September 7.

Speaker: Jeffrey Galkowski, UC Berkeley
Title: *Mathematics of Signal Processing*

Signal processing is an extremely important tool for devices ranging from cell phones to DJ equipment. This talk will cover the basics of signal processing including LTI systems, sampling, and filtering. The goal of the talk is to derive the matched filter which is the optimal filter for detecting a given signal under Gaussian additive noise.

I am the very model of a modern Major-General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the flights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse.
I'm very good at integral and differential calculus;
I know the scientific names of beings animalculous:
In short, in matters vegetable, animal, and mineral,
I am the very model of a modern Major-General.