

Vector Signal Analysis of Frequency Modulated Signals ... part 2

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FM Demodulation Project

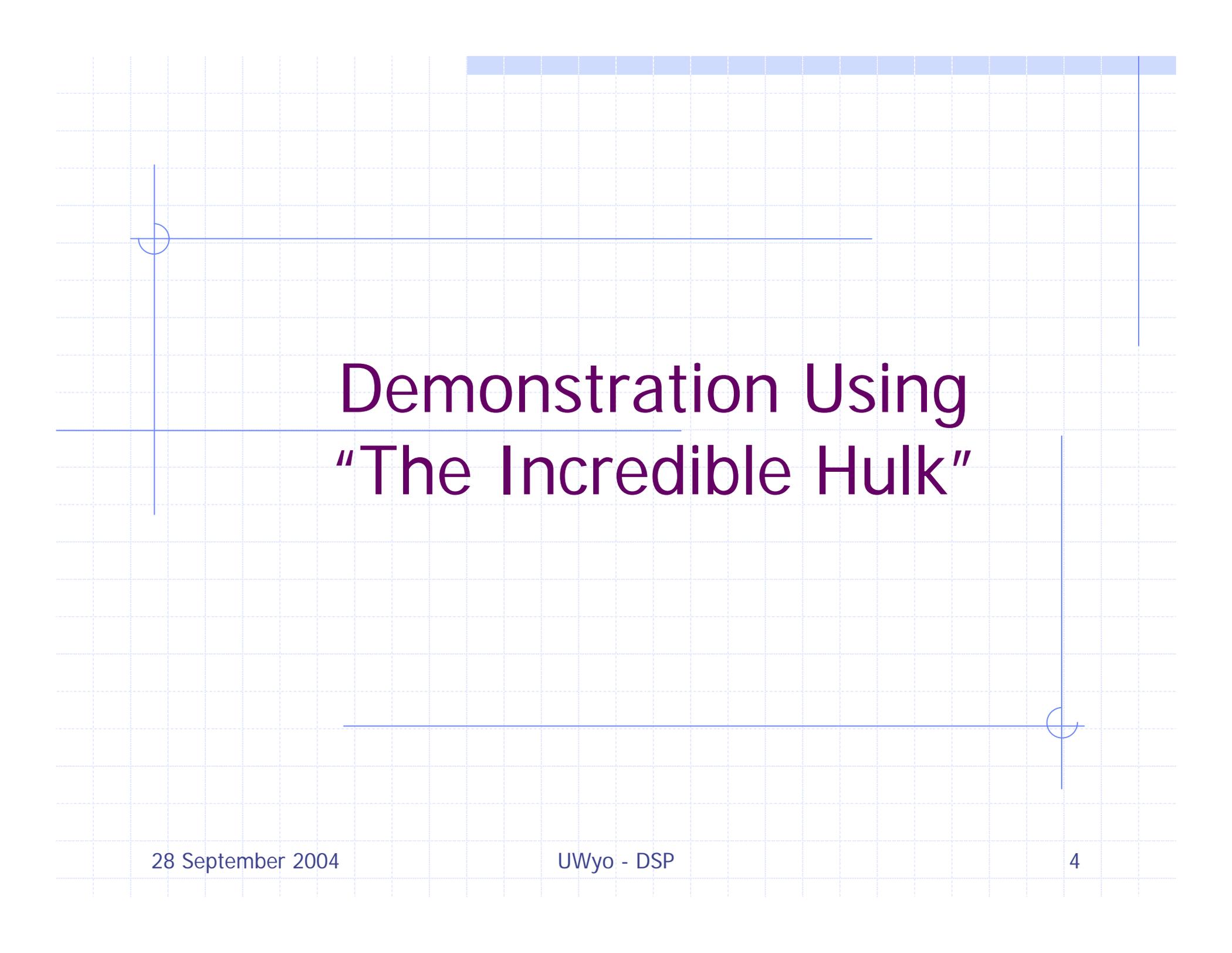
- ◆ Any problems with your demodulation routine?

- ◆ What was the,
 - message?
 - sample frequency?
 - length of the message?
 - bandwidth of the message?

FM Demo Using An RF Signal Generator

- ◆ Offset carrier frequency (< 99.1 MHz)
- ◆ Frequency deviation ... 1000 Hz
- ◆ Message frequency ... 1500 Hz

- ◆ Look at the spectrum
- ◆ Record and analyze I & Q data in MATLAB



Demonstration Using "The Incredible Hulk"

Homework

- ◆ Demodulate the data contained in the FM_95_1_span_500.mat file ... netuser drive (EE4800-04)
 - Load the .mat file
 - Execute your FM demodulation routine
 - MATLAB commands ... double, psd, sound, soundsc, angle, unwrap, diff, and load may be helpful
 - ◆ Plot the power spectrum of the recovered signal
 - ◆ What is the message?