



Doppler Experiment using the MIT IAP 2011 Laptop Based Radar*

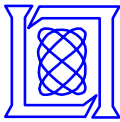
Presented at the 2011 MIT Independent Activities Period (IAP)

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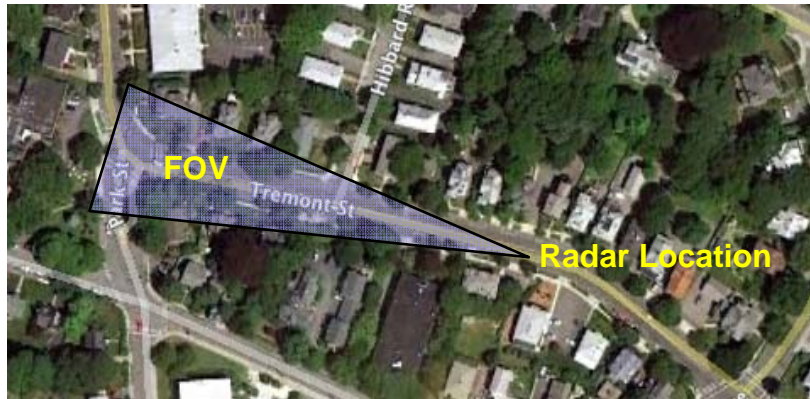
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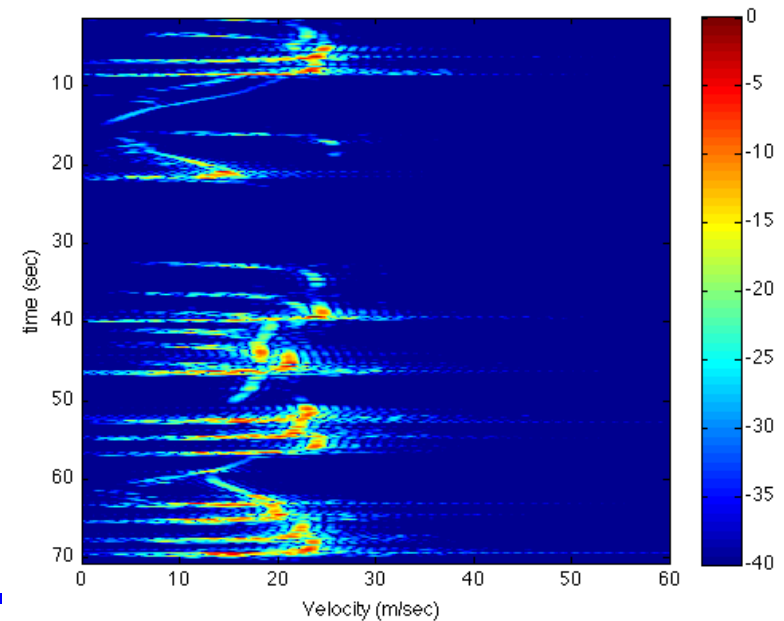


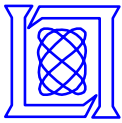
Radar Kit: Doppler vs. Time

1. Bias Vtune to CW
2. Connect to audio input of laptop
3. Open 'Sync Pulse Inhibit' switch
4. Deploy radar near fast moving targets
5. Record .wav file of input audio
6. Process using read_data_doppler.m
 - parses .wav into 4410 sample blocks
 - plots the log magnitude of the IDFT of each block



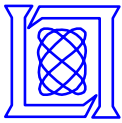
Tremont street near Newton corner



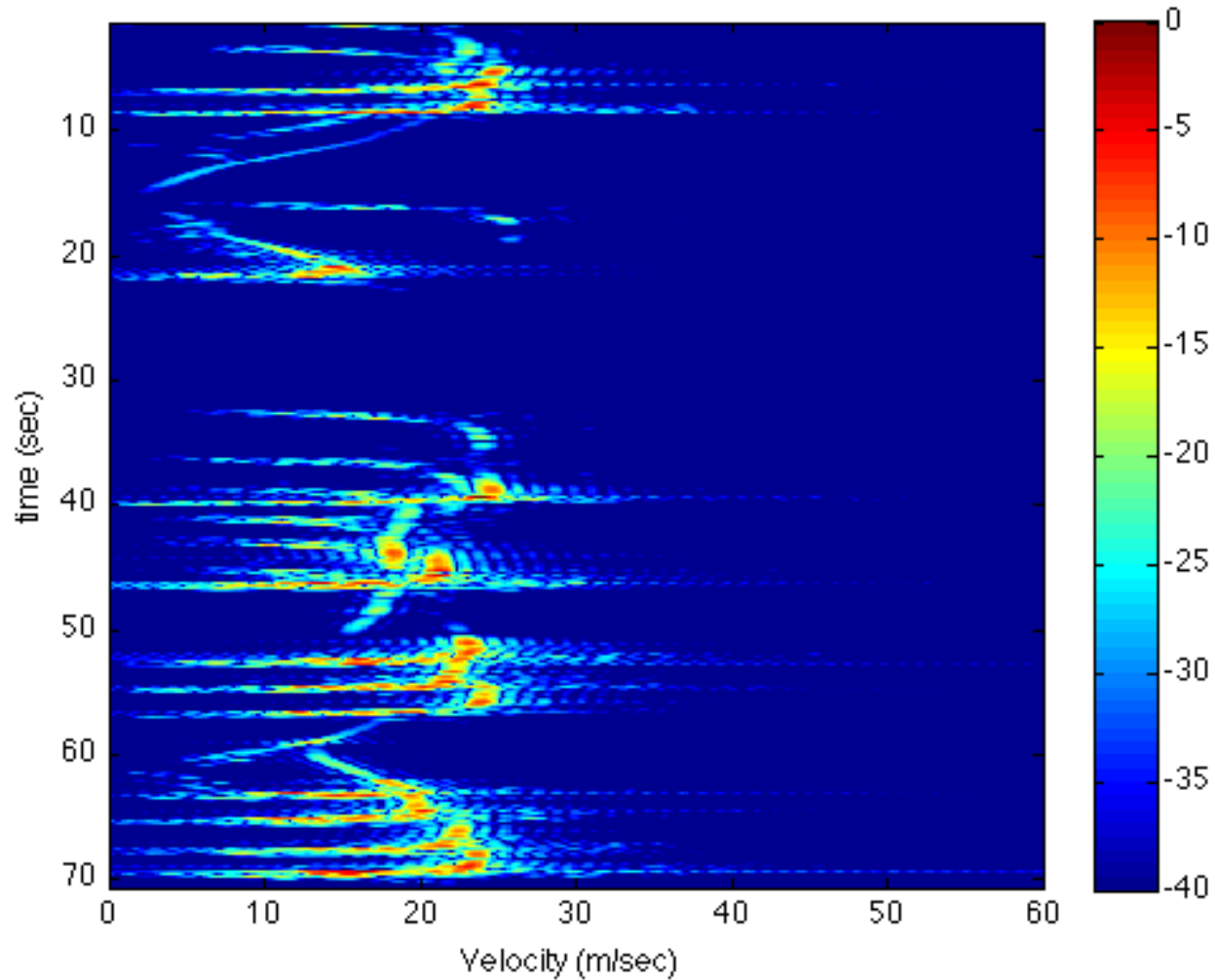


Example: Tremont Street off of Newton Corner





Example: Tremont Street off of Newton Corner



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Resource: Build a Small Radar System Capable of Sensing Range, Doppler, and Synthetic Aperture Radar Imaging
Dr. Gregory L. Charvat, Mr. Jonathan H. Williams, Dr. Alan J. Fenn, Dr. Steve Kogon, Dr. Jeffrey S. Herd

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