

# Compressive Sensing & Sparse Signal Processing

## Course Project Report

Title of the Paper Reviewed Goes Here

(E9-203-AbhayRollNumber-ChandraRollNumber)

by

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Feb. 04, 2013



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## 1 Paper Reviewed

Put the full reference of the paper here.

### 1.1 Primary Objective(s)

*The main stated goals of the paper as a bulleted list. (About half a page.)*

## 2 Problem Setup

*Set down the notation, system model, etc. here.*

As far as possible, use the same notation as in the class:

Symbol	Meaning
$\mathbb{C}, \mathbb{R}$	complex and real fields
$m$	number of measurements (observations)
$N$	length of a sparse vector (large!)
$\mathbf{x}$	sparse vector, $N \times 1$
$\mathbf{A}$	measurement matrix, $m \times N$
$\mathbf{w}$	noise vector, $m \times 1$

## 3 Main Results

*What are the main points in the paper? This can be a short summary (about 1 page) of the main results obtained.*

## 4 Algorithms and Methods Developed

*If applicable/possible, include pseudo code.*

## 5 Proofs, Details, etc.

*Include all the proofs and details that you wish to show.*

## 6 Critical comments on the results

*If you have any ...*

## 7 Simulation Results

*Describe the simulation setup, show some plots, and then **interpret your results**.*

## 8 Appendix

### 8.1 Mathematical background

*If you had to pick some basic mathematical background to help you with the paper, explain it here*

### 8.2 Matlab or C/C++ Code

*Cut and paste the code here!*

## References

- [1] L. Zheng and D. Tse, "Diversity and multiplexing: A fundamental tradeoff in multiple-antenna channels," *IEEE Trans. Inf. Theory*, vol. 49, no. 5, pp. 1073–1096, May 2003.