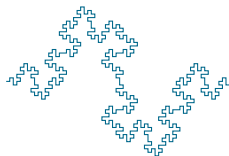# Presentation Title

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POINTERS

- 15 mins - 12 mins presentation, 3 mins questions
  - brief context, theory
  - project aims and goals
  - work acheived to date
  - problems and solutions
  - work to be performed
- 1 slide per minute
- large fonts
- avoid formulae, complex diagrams
- uncluttered slides with block diagrams and lists are good

INTRODUCTION

COMMUNICATION OVERVIEW

Image of typical comms system

DETECTION BASICS

Image of received signal PDF

DETECTION BASICS

Image of RRC response

DETECTION BASICS

Image of RRC response with offset

DETECTION BASICS

Image of received signal PDF with offset

AIMS OF PROJECT

To determine the effects of timing offset on receiver
performance, and develop a means of improving performance
through detector redesign.

ACHIEVEMENTS

- Developed models of 4-PAM communications systems in Mathematica
- Examined performance in non-fading (line-of-sight) environment
- Examined performance in Rayleigh fading environment with EGC
- Examined performance in Rayleigh fading environment with MRC
- Positive results:
    - Lower optimum decision region boundaries in the presence of timing error
    - Performance increase from redesigning detector to take this into account

RESULTS

Plot of ER

FRAME 1

PROBLEMS ENCOUNTERED

Plot of ER

FRAME 1