# WARP: Wireless Open-Access Research Platform

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#### Welcome!

- I0<sup>th</sup> WARP Workshop (6<sup>th</sup>@Rice, 4 International)

- II Visitors

- 5 Rice participants

#### Introductions

- Rice Instructors
  - Melissa Duarte
  - Sid Gupta
  - Patrick Murphy
  - Chris Hunter

- Participants
  - Name
  - Institution, Advisor
  - Research Focus

## Workshop Goals

- Introduce you to all the tools and design flows
- Expose to important issues, not all
  - Expertise requires experience
- Ask a lot of questions
  - Instructors are creators of WARP
- Do all labs (even if not in your area)
  - Great programmers know hardware
  - Great computer architects know their applications

### Post-Workshop

- More questions?
  - WARP Repository Documentation
  - WARP Forums
- Contribute, this is an open-source effort
  - Participate in discussions online, help with knowledge base
  - Contribute code to increase codebase
  - Post data from experiments
  - Share methodology to conduct experiments more efficiently

## Agenda – Day I

- Presentation: Introduction to WARPLab (Melissa)
- Lab I: WARPLab
- Lunch
- Presentation: Introduction to Xilinx Platform Studio (Sid)
- Lab 2: Using XPS & WARP User I/O
- Presentation: Physical Layer Design on WARP (Patrick)
- Lab 3: Building a Simple Transceiver

# Agenda – Day 2

- Presentation: Introduction to MAC Design on WARP (Chris)
- Lab 4: NoMAC
- Lab 5: HalfMAC Software
- Lunch
- Presentation: Advanced MAC Design A Case Study (Chris)
- Lab 6: HalfMAC Hardware
- Demo: OFDMA System on WARP (UCI)