

Building a CPS Community

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 - interaction
 - common history

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- *Jeannette Wing:*
 - **Don't ask** "What's the next hard problem in **my community?**"

Common Interests in CPS

- *challenge problems (theory and application)*
- *language & terminology*
- *concepts & methods*
- *tools & techniques*

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- *These things don't exist yet (at least in the context of the full CPS agenda)*

Interaction

- *Conferences & Workshops*
 - CPS Week
 - ES Week
 - CPS Symposia & Workshops
- *Publications*
 - Special Issues
 - Journals, Letters
 - ACM, IEEE, ?

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- *CPS Program Initiatives*
 - CPS PI Meetings
 - CPS Virtual Organization

Common History

- *3.5 years of CPS Workshops and Summits*
- *Become familiar with what's happened so far and follow what's going on—even if it's not in your current discipline*

Education

- *What would make the best preparation for CPS scientists/engineers/researchers?*
- *the current situation: fundamental divisions*
 - discrete vs. continuous mathematics
 - first principles vs. empirical methods
 - off-line computation vs. real-time systems
- *Need to re-think*
 - Ph.D. researcher
 - Graduate courses
 - Undergraduate education
 - K-12

Afternoon sessions - 1

- *Panel 1: CPS Sector and Domain Challenges*
 - Prof. Jeff Trinkle (RPI) - Robotics
 - Prof. Insup Lee (U Penn) - Medical Devices and Systems
 - Prof. Eric Feron (Ga Tech) - Aviation
 - Prof. Bruce McMillin (MST) - Energy and the Environment
 - Prof. Raj Rajkumar (Carnegie Mellon) – Automotive