Control of interconnected systems: from theory to industrial applications

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A full day workshop for CDC-ECC’05

Seville, Spain – December 11, 2005
Overview

- **Lots of activities in the last \( \approx 8 \) years**
  (Bamieh, D’Andrea, Dullerud, Gorinevsky, Lall, Paganini, Stewart, Voulgaris, etc.)

- **Organizers**
  - Mihailo Jovanović, UMN
  - Cédric Langbort, Caltech

- **Invited Speakers**
  - Bassam Bamieh, UCSB
  - Raffaello D’Andrea, Cornell
  - Geir Dullerud, UIUC
  - Dimitry Gorinevsky, Honeywell/Stanford
  - Sanjay Lall, Stanford
  - Fernando Paganini, UCLA
  - Greg Stewart, Honeywell/UBC
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- **Actual Speakers**
  Bassam Bamieh, UCSB
  Cédric Langbort (for Raffaello D’Andrea)
  Geir Dullerud, UIUC
  Dimitry Gorinevsky, Honeywell/Stanford
  Sanjay Lall, Stanford
  Fernando Paganini, UCLA
  Guy Dumont (for Greg Stewart)
  Michael Rotkowitz, KTH
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker/Title</th>
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<tbody>
<tr>
<td>08:45 - 10:15</td>
<td>Bassam Bamieh Distributed control: optimality and architecture</td>
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<td>10:15 - 10:30</td>
<td>Break</td>
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<td>10:30 - 11:15</td>
<td>Guy Dumont (for Greg Stewart) Recent developments in spatially distributed control systems on the paper machine</td>
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<td>11:15 - 12:00</td>
<td>Cédric Langbort (for Raffaello D’Andrea) A state-space approach to control of interconnected systems</td>
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<td>12:00 - 01:00</td>
<td>Lunch break</td>
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Final schedule: afternoon

01:00 - 01:45  Mihailo Jovanović  
Control of vehicular platoons: limitations and tradeoffs

01:45 - 02:30  Sanjay Lall  
Algorithms for decentralized control problems

02:30 - 02:45  Break

02:45 - 03:30  Cédric Langbort  
From distributed control to distributed algorithms and back

03:30 - 04:15  Michael Rotkowitz  
Parameterization of stabilizing controllers for interconnected systems

04:15 - 04:30  Break

04:30 - 05:00  Mihailo Jovanović  
On the optimality of localized distributed controllers

05:00 - 05:30  All participants  
Questions, comments, discussion
Additional info (after the conference)

Workshop web-page
www.umn.edu/~mihailo/cdc-ecc05.html