

Call for Contributions

Note: Onsite and Online Options

In order to accommodate a large number of situations, we are offering the option for either physical presence or virtual participation. We would be delighted if all authors manage to attend in person, but are aware that special circumstances are best handled by having flexible options.

Submission:

1. Inform the Chair: with the Title of your Contribution

2. Submission URL:

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ICAS+2020+Special>

Please select Track Preference as **ACAS**

Special track

ACAS: Adaptive Control and Autonomous Systems

Chair and Coordinator

Prof. Dr. Mark J. Balas, Mechanical Engineering Department, Texas A&M University, USA Email:

mbalas@tamu.edu

along with

ICAS 2020, The Sixteenth International Conference on Autonomic and Autonomous Systems

<https://www.iaria.org/conferences2020/ICAS20.html>

September 27 - October 01, 2020 - Lisbon, Portugal

Autonomous systems must function with little or no human supervision or intervention. The active controllers for such systems must be able to adapt to changing scenarios and situations. The foundation of such adaptation is the use of nonlinear direct adaptive control, i.e., controllers that nonlinearly modify their feedback gains to maintain stability in the presence of a changing environment or to track idealized models of acceptable behavior, and suppress persistent disturbances from the environment.

When adaptive control is used in the development of autonomous systems both aerospace and earth-based, it is very effective at maintaining stability and performance even when used as an augmentation of a well-designed fixed gain system. The dynamic interaction of adaptive controllers with multiple vehicle systems and general networked systems can be better understood via nonlinear theoretical methods as the include papers show. Even quantum systems which have an inherently infinite-dimensional nature can be included.

Topics include, but not limited to:

- Autonomous systems
- Active controllers
- Non-linear feedback adaptation
- Maintaining stability and performance
- Stability and environment changes
- Aerospace and earth-based autonomous systems
- Dynamic interaction of adaptive controllers
- Applications

Important Datelines

Submission: July 3, 2020

Notification: July 23, 2020

Registration: August 2, 2020

Camera ready: August 2, 2020

Contribution Types

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format

- See: <http://www.iaria.org/format.html>

- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>

Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

Paper Submission

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ICAS+2020+Special>

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Registration

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaria.org/registration.html>

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