Leibniz Transactions on
Embedded Systems

Call for Papers
Special Issue on Distributed Hybrid Systems

Distributed hybrid-state systems (DHS) are abundant, many of them are safety-critical, but ensuring their correct functioning is very difficult. We believe that new techniques are needed for the analysis and validation of DHS. More precisely, we believe that convergence and interaction of methods and tools from different areas of computer science, control engineering, and mathematics is needed in order to advance the subject.

The LITES journal has kindly agreed to publish a Special Issue on Distributed Hybrid Systems. The issue will be concerned with advancing the use of formal methods, broadly construed, to ensure the correct functioning of hybrid or cyber-physical systems (CPS) with distributed features. The hybrid characteristic denotes the presence of continuous dynamics, interacting with digital components, as in CPS applications. We are specifically calling for papers that combine several of the existing approaches for DHS, but more generally anything that can advance the state of the art in DHS analysis and validation will be considered.

This special issue will also contain selected papers from the International Workshops on Methods and Tools for Distributed Hybrid Systems (DHS, http://dhs.gforge.inria.fr/) held in 2018 (Paris) and 2019 (Amsterdam), but it is open to additional external contributions that are related to the focus of the workshop series.

All articles submitted to this special issue will undergo a rigorous reviewing process of the LITES journal, which will be coordinated by the three special editors Alessandro Abate (Oxford University), Uli Fahrenberg (LIX, École polytechnique), and Martin Fränzle (Carl von Ossietzky Universität Oldenburg). Manuscripts submitted should contain original and in major parts unpublished research work and be of appropriate length for the contents covered, preferably of approximately double the length of a typical conference paper, i.e., up to ca. 30 pages. As usual with LITES, accepted articles are published open access, i.e., accessible online without any costs, and the rights are retained by the author(s).

Important Dates:
– Full paper submission: ~~March 31, 2020~~ July 30, 2020
– First editorial notice: ~~June 30, 2020~~ October 30, 2020
– Revised submission: ~~July 28, 2020~~ November 28, 2020 *Further information:*
– Final decision: ~~August 25, 2020~~ Dec. 23, 2020 *http://dhs.gforge.inria.fr/*