

A workshop at the 3rd World Congress on Formal Methods 2019



# DaLí

## Dynamic Logic: new trends and applications

Porto, 9 October, 2019  
workshop.dali.di.uminho.pt

### Invited Speaker

Dexter Kozen (Cornell University)

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Fernando Velazquez-Quesada (ILLIC, NL)  
Olivier Roy (U Bayreuth, DE)  
Lutz Schröder (FAU, Erlangen-Nürnberg, DE)  
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Renata Wassermann (USP, BR)

Building on the pioneer intuitions of Floyd-Hoare logic, dynamic logic was introduced in the 70's as a suitable logic to reason about, and verify, classic imperative programs. Since then, the original intuitions grew to an entire family of logics, which became increasingly popular for assertional reasoning about a wide range of computational systems. Simultaneously, their object (i.e. the very notion of a program) evolved in unexpected ways. This led to dynamic logics tailored to specific programming paradigms and extended to new computing domains, including probabilistic, continuous and quantum computation. Both its theoretical relevance and practical potential make dynamic logic a topic of interest in a number of scientific venues, from wide-scope software engineering conferences to modal logic specific events. However, no specific event is exclusively dedicated to it. This workshop aims at filling in such a gap, joining an heterogeneous community of colleagues, from Academia to Industry, from Mathematics to Computer Science.

*Support:* PT-FLAD Chair & Dalí - POCI-01-0145-FEDER-016692.

### Topics.

Submissions are invited on the general field of dynamic logic, its variants and applications, including, but not restricted to

- Dynamic logic, foundations and applications
- Logics with regular modalities
- Modal/temporal/epistemic logics
- Kleene and action algebras and their variants
- Quantum dynamic logic
- Coalgebraic modal/dynamic logics
- Graded and fuzzy dynamic logics
- Dynamic logics for cyber-physical systems
- Dynamic epistemic logic
- Complexity and decidability of variants of dynamic logics and temporal logics
- Model checking, model generation and theorem proving for dynamic logics

**Submissions and publication.** Original papers (unpublished and not submitted for publication elsewhere), up to 15 pages in *LNCS* style. As in the previous edition, post-proceedings will be published by Springer in a *Lecture Notes of Computer Science* volume, and a special issue with extended, revised contributions is planned.

Submit via the EasyChair link

<https://easychair.org/conferences/?conf=dali2019>.

### Important Dates.

Submission: **June 14, 2019**

Notification: July 19, 2019

