

# Action Dark Energy (ADE)

Overview and Prospects

10 Years of Scientific Animation

2026

# Outline

- 1 What is ADE?
- 2 Structure and Evolution
- 3 Workshop Format
- 4 2025 Edition: Scientific Highlights
- 5 Past and Future Editions
- 6 Outlook

## Founding Objective

Bring together the French dark energy community, gathering researchers from **INP**, **IN2P3**, and **INSU**.

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# Action Dark Energy – Origins and Mission

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Website: <https://action-dark-energy.obspm.fr/>

Mailing list: ~ 300 people

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- Tools
- Theory
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## Webinars

ADE webinars are now integrated into the **GdR webinar series**:

https:

[//indico.in2p3.fr/category/952/](https://indico.in2p3.fr/category/952/)

Recordings are available online.

**Next:** June 9, 2026

*by Corentin Ravoux*

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## Recurring Scientific Topics

- Cosmological tensions
- DESI and Euclid results
- $f\sigma_8$ , DES, KiDS
- CMB
- ...

## Dark Energy & Cosmological Tensions

- **DESI DR2** (3-yr): BAO & expansion history
- Hints of deviation from  $\Lambda$  at late times
- Dark sector interactions & tensions
- Open EFT of dark energy

## Photometric Surveys & Weak Lensing

- **KiDS-DR5**: final cosmic shear analysis
- **DES Y6**:  $3 \times 2$ pt over 4 000 deg<sup>2</sup>
- **Euclid**: probe combination beyond  $\Lambda$ CDM
- **LSST/Rubin**: commissioning & first results

## CMB Experiments

- **Simons Observatory**: status & forecasts
- **SPT-3G D1**: most precise TT/TE/EE to date
- CMB  $\times$  galaxy survey synergies

## Next-generation Spectroscopy

- **4MOST-CRS**: BG & LRG target selection
- Round table: 5th-generation spectroscopic surveys

## Type Ia Supernovae – ZTF at the Forefront

- **ZTF SN Ia DR2** ( $\sim 3000$  SNe Ia): published results
- $f\sigma_8$  from ZTF peculiar velocities
- Isotropy of cosmic expansion with ZTF
- Spectrophotometric standardisation (ZTF-SEDm)
- **DESI** peculiar velocity survey, DR1 growth rate

## Theory & Analysis Methods

- EFTofLSS: power spectrum & bispectrum
- Field-level inference with BORG (DESI + ZTF)
- Angular bispectrum for photometric surveys
- Scattering transforms & component separation
- 21-cm signal: cosmology & reionisation

## Lensing & Other Probes

- Strong lensing time delays (TDCOSMO)
- Gaia MW rotation curve & MOND implications

## Editions: Past and Upcoming

<b>Edition</b>	<b>Venue</b>	<b>Notes</b>
2025	Montpellier	9th edition
<b>2026</b>	<b>Paris – IHP</b>	<b>Nov. 2–4 · 10th edition</b>
2027	Les Karellis	<i>New format</i>

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### 2027 – An Experimental New Format

Inspired by the **Moriond** model: residential mountain retreat.

**March 21–26, 2027** at **Les Karellis**  
*(slot freed by the absence of Moriond cosmology that year)*

**Schedule will be adapted to leave time for skiing!**



Les Karellis Conference Village — Maurienne Valley

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## Future Directions

- Residential format in 2027 (Karellis)
- Sustaining webinar momentum
- Stronger synergies with the GdR
- Growing role of the Tools WG

**ADE enters its second decade!**

## Action Dark Energy

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GdR Webinars:

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**Next meeting:**

Paris – IHP, November 2–4, 2026

*and in 2027, see you at Les Karellis!*