



News from APPEC

Alexander Burgman (Stockholm Univ.)





What is APPEC

AstroParticle Physics
European Consortium
appec.org



... is a consortium of <u>funding agencies</u>, national <u>government institutions</u>, and <u>institutes</u> from 18 European countries, responsible for **coordinating and funding national research efforts in astroparticle physics.**



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Proton

decay

Gravitational waves Matter-antimatter asymmetry

High-energy neutrino sources

Multi-messenger astronomy

Earliest phases of the Universe

Dark Matter Dark Energy

Cosmic ray origin

Neutrino properties





General assembly

Joint secretariat

Scientific advisory committee



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Scientific advisory committee



Strategic, supervisory, steering organ of APPEC

Chair: Carlos Peña Garay (LSC)

Vice-chair: Leszek Roszkowski (CAMK)

28 member-representatives

Sweden/VR: Alex Burgman (SU)

Invited

Chair of APPEC SAC: Aldo lanni, LNGS-INFN

Chair of EuCAPT: Silvia Pascoli, INFN

Observers CERN, ESO, Astronet, EPS-HEPP, NuPECC, ECFA



General assembly

Joint secretariat

Executive body of APPEC

General secretary: Julie Epas (APC)

- APC
- DESY
- **INFN-LNGS**
- KIT
- LSC
- Nikhef



General assembly

Joint secretariat

Scientific advisory committee

Examines and reports on issues of strategic scientific importance, proposes programmes or projects for adoption as activities of APPEC.

Chair: Aldo Ianni (INFN-LNGS)

23 Members (elected ad-personam)

Swedish member: Chad Finley (SU)

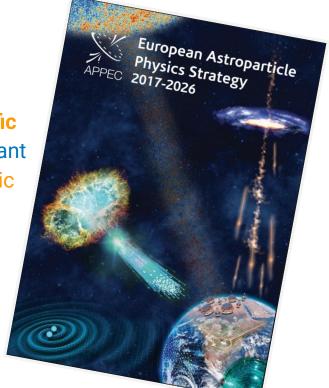


European Astroparticle Physics Strategy 2017–2026 APPEC

21 recommendations endorsed by the astroparticle community, and resource & funding aware — recommendations addressing, in addition to the **scientific issues**, crucial **organisational aspects** as well as important **societal issues** such as gender balance, education, public outreach and relations with industry.

Approved: Nov 2016

<u>appec.org/european-astroparticle-physics-strategy-2017-2026</u>



Mid-term update to:

European Astroparticle Physics Strategy 2017-2026

High-impact events:

- Multimessenger observation of neutron star merger
- Maturing of European gravitational wave telescope
- Global pandemic

Not fully repeat 2017-2026 strategy, but discuss relevant developments since 2017 and provide an **updated set of recommendations**.

Approved: summer 2023





Provide recommendations endorsed by the astroparticle physics community to the funding agencies – recommendations addressing, in addition to the **scientific issues**, crucial **organisational aspects** as well as important **societal issues** such as gender balance, education, public outreach and relations with industry.

- Written by (extended) SAC
- Approved by GA

European Astroparticle Physics Strategy 2027-2036

Provide recommendations endorsed by the astroparticle physics community to the funding agencies – recommendations addressing, in addition to the **scientific issues**, crucial **organisational aspects** as well as important **societal issues** such as gender balance, education, public outreach and relations with industry.



European Astroparticle Physics Strategy 2027-2036

Provide recommendations endorsed by the astroparticle physics community to the funding agencies – recommendations addressing, in addition to the **scientific issues**, crucial **organisational aspects** as well as important **societal issues** such as gender balance, education, public outreach and relations with industry.

Topic									
Cosmic rays	A.Nelles	M. de Naurois	I. Maris	P Chadwick	S. de Jong	Piotr Homola			
Gamma rays from cosmic sources	M. de Naurois	P Chadwick	I. Maris	D. Paneque					
Neutrino astrophysics	A.Nelles	F.Šimkovic	I. Tamborra	A. Heijboer	C. Finley	I. Maris	M. Spurio		
Gravitational waves	E. Toumefier	M. Branchesi	E. Cuoco						
Dark matter search (direct&indirect)	A. lanni	C. Weinheimer	M. Kuźniak	N. Rossi					
Neutrino properties	O.Cremonesi	C. Weinheimer	J. Kopp	F.Šimkovic	M. Kuźniak	N. Rossi	C. Gonzalez Garcia	O. Lahav	A. lanni
CMB and early universe	S. Escoffier	S. Loucatos	Martina Gerbino	J-Baptiste Melin	M. Drewes				
Dark energy and alternative theoriesof gra	S. Escoffier	O. Lahav							
Astroparticle theory	J. Kopp	C. Gonzalez Garcia							
Multi-messenger observations	M.Branchesi	O. Lahav	A. lanni	I. Tamborra	M. Spurio				
Instrumentation, technology and infrastru	A. lanni	E. Tournefier	I. Stekl	F.A.Danevich	G. Ambrosi				
Artificial Intelligence	E. Cuoco	O. Lahav	Christoph Weniger						
Computing and data policies	A. Nelles	I. Maris	E Cuoco						
Open science and citizen science	Piotr Homola	S. de Jong	Rosy Mondardini	A. lanni	Stephen Serjeant				
Ecological and social impact	S. de Jong	A. lanni							
Interdisciplinary	Piotr Homola	A. lanni							

Scientific topics

Complementary topics S

European Astroparticle Physics Strategy 2027-2036

Scientific topics

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Strategy '27-'36 Townhall meeting

Townhall meeting as kick-start for strategy writing process.

- Sep 2025, Zaragoza <u>indico.cern.ch/event/1516919</u>
- Round-table discussions
- Well-attended, valuable input to strategy work



Stay tuned for the briefing book, and next townhall meeting (Sep 2026) for finalizing the strategy!







Joint ECFA-NuPECC-APPEC

Join forces not only to solve the questions on the smallest and the largest structures in nature, but also to improve on diversity, working conditions and societal impact

JENAS: JENA Symposium, RAL Apr 2025

The many **synergies** between Particle, Nuclear and Astroparticle Physics are addressed in the third Joint Symposium. Physics **highlights**, **future projects** and **strategies** as well as **challenges** in detector technology and computing are discussed, together with **progress** on seven approved joint activities.

Attended by European Commission:

Collaborate! Find synergies between the three fields to promote each others' relevance and impact.



APPEC Tech Forum: Vacuum & Cryogenics

IUVSTA Workshop 109: APPEC Tech Forum Vacuum & Cryogenics — Industry meets Academia

Nov 24th-26th 2025 (now!), Maastricht, Netherlands

Meeting ground for the academy and tech industry to explore collaborations in vacuum and cryo-technology.





Conclusion

APPEC is working towards the future of astroparticle physics research in Europe

Main activity in 2026:

European Astroparticle Physics Strategy 2027–2036

Stay tuned for the briefing book, and join the:

Town-hall meeting in Sep 2026 to have your say!

And subscribe to the newsletter:

appec.org/latest-news/newsletters