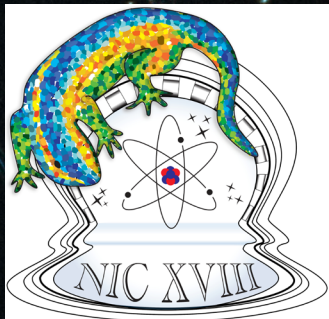




International Symposium on
Nuclei in the Cosmos
2025

OPENING

Jordi José
NIC XVIII Symposium
UPC & IEEC, Barcelona



Benvinguts a Girona!
Welcome to Girona!





**International Symposium on
Nuclei in the Cosmos XVIII (NIC
XVIII)**

June 15-20, 2025

Girona, France



Credit: *Perfume – The Story of a Murderer*

[Pujada de St. Domènec, Girona]



Credit: *Game of Thrones*, HBO (Season 6)

[Catedral de Sta. Maria, Girona]

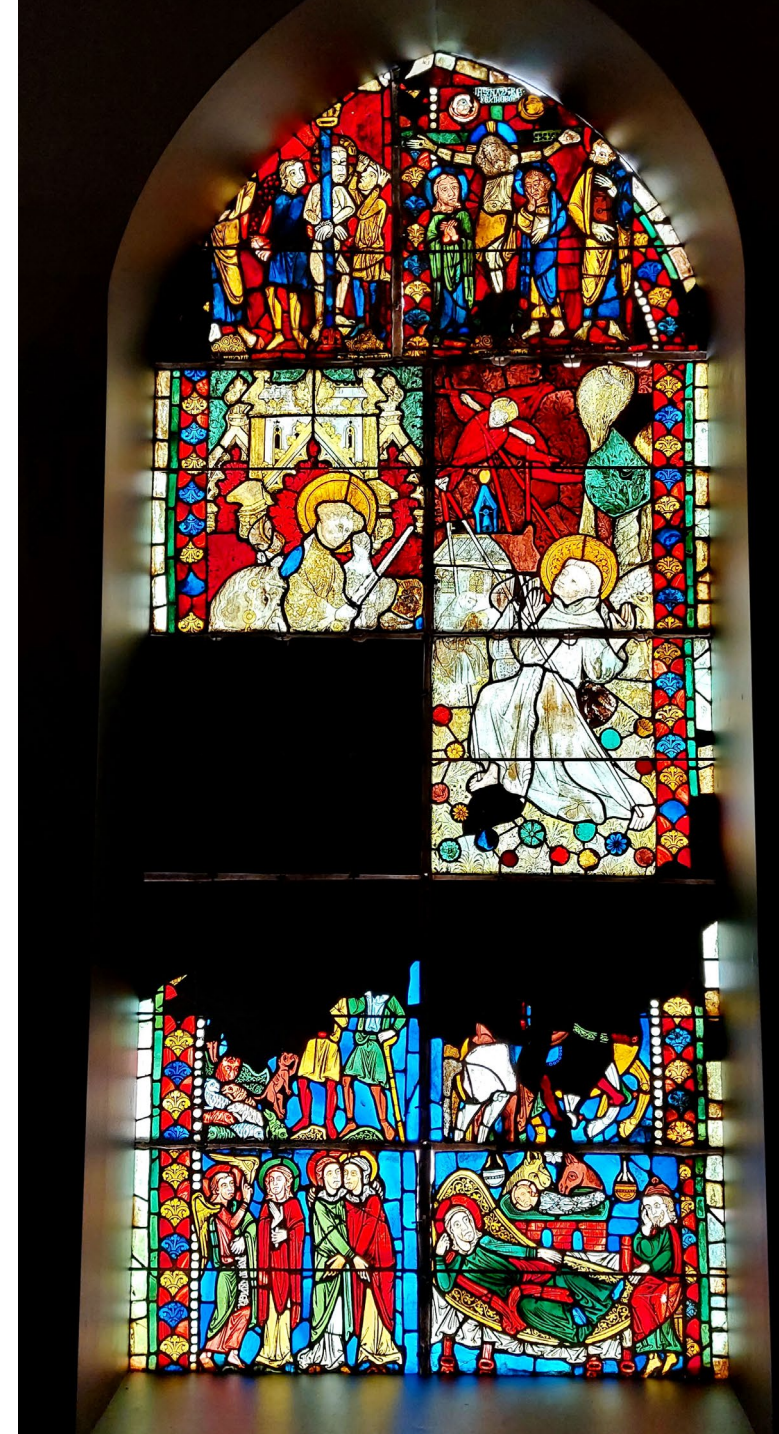


The Cathedral has the widest Gothic nave in the Galaxy!



The Corpus Christy Stained Glass (13th Cent.; oldest in Catalonia)

Tapestry of Creation (11th Cen.; 3.6 m x 4.5 m)





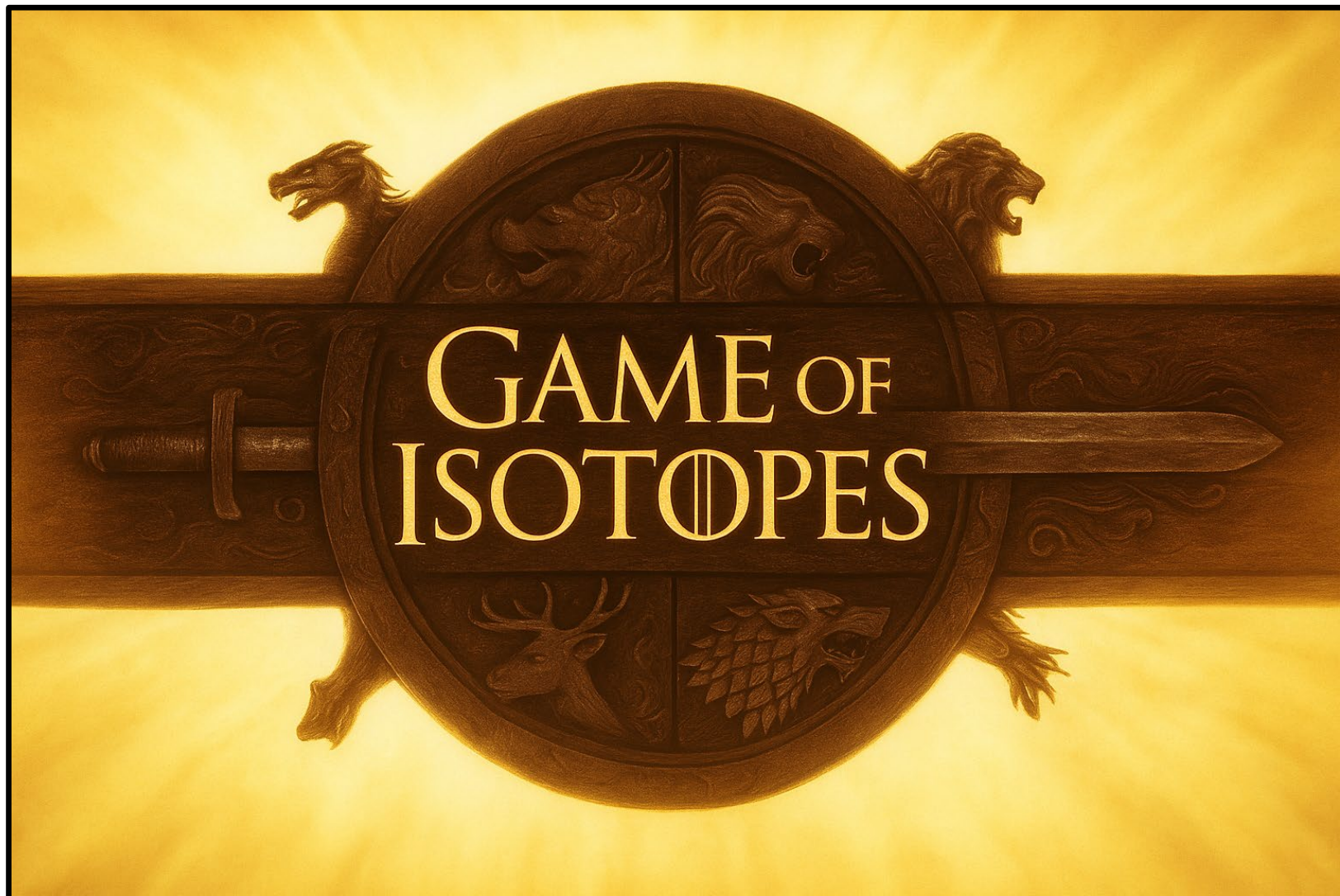
Credit: *Game of Thrones*, HBO

Monestir de St. Pere de Galligants, 12th Cen.



Credit: *Game of Thrones*, HBO

[Pujada de St. Domènec, Girona]



REVIEWS OF
MODERN PHYSICS

VOLUME 29, NUMBER 4

OCTOBER, 1957

Synthesis of the Elements in Stars*

E. MARGARET BURBIDGE, G. R. BURBIDGE, WILLIAM A. FOWLER, AND F. HOYLE

Kellogg Radiation Laboratory, California Institute of Technology, and
Mount Wilson and Palomar Observatories, Carnegie Institution of Washington,
California Institute of Technology, Pasadena, California

"It is the stars, The stars above us, govern our conditions";
(King Lear, Act IV, Scene 3)

but perhaps

"The fault, dear Brutus, is not in our stars, But in ourselves,"
(Julius Caesar, Act I, Scene 2)

TABLE OF CONTENTS

	Page
I. Introduction.....	548
A. Element Abundances and Nuclear Structure.....	548
B. Four Theories of the Origin of the Elements.....	550
C. General Features of Stellar Synthesis.....	550
II. Physical Processes Involved in Stellar Synthesis, Their Place of Occurrence, and the Time-Scales Associated with Them.....	551
A. Modes of Element Synthesis.....	551
B. Method of Assignment of Isotopes among Processes (i) to (viii).....	553
C. Abundances and Synthesis Assignments Given in the Appendix.....	555
D. Time-Scales for Different Modes of Synthesis.....	556
III. Hydrogen Burning, Helium Burning, the α Process, and Neutron Production.....	559
A. Cross-Section Factor and Reaction Rates.....	559
B. Pure Hydrogen Burning.....	562
C. Pure Helium Burning.....	565
D. α Process.....	567
E. Succession of Nuclear Fuels in an Evolving Star.....	568
F. Burning of Hydrogen and Helium with Mixtures of Other Elements; Stellar Neutron Sources.....	569
IV. e Process.....	577
V. s and r Processes: General Considerations.....	580
A. "Shielded" and "Shielding" Isobars and the s , r , p Processes.....	580
B. Neutron-Capture Cross Sections.....	581
C. General Dynamics of the s and r Processes.....	583
VI. Details of the s Process.....	583

* Supported in part by the joint program of the Office of Naval Research and the U. S. Atomic Energy Commission.

547

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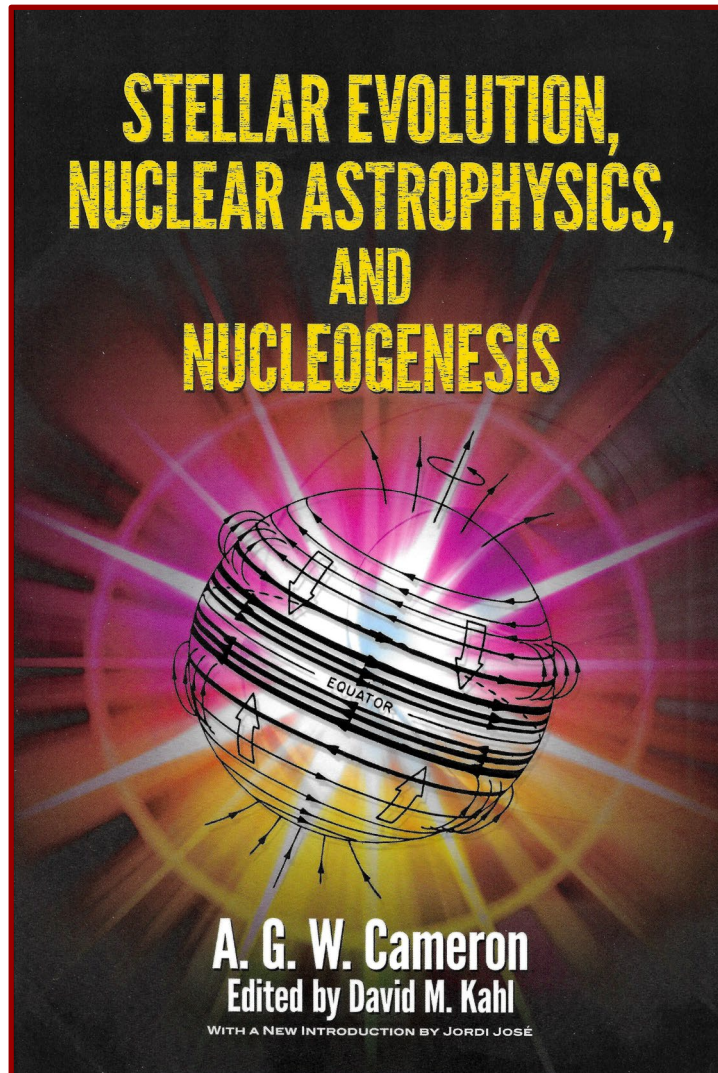


E.M. Burbidge, G.R. Burbidge, W.R. Fowler, and F. Hoyle

B²FH

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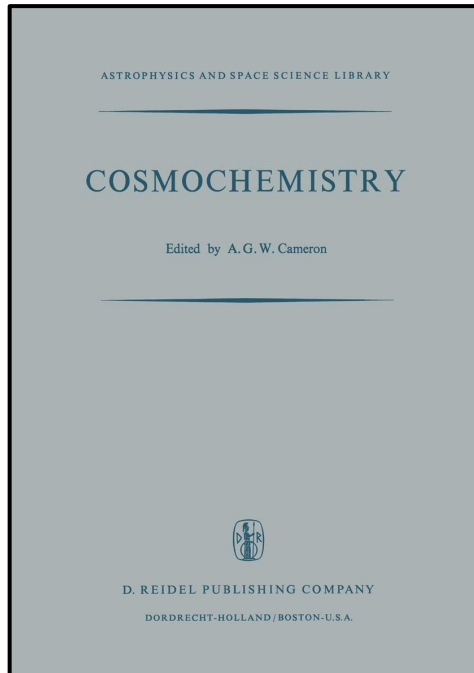
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A.G.W. Cameron

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INTERSTELLAR GRAINS IN MUSEUMS?

A. G. W. CAMERON

Belfer Graduate School of Science, Yeshiva University, New York, N.Y., U.S.A.

and

Goddard Institute for Space Studies, NASA, New York, N.Y., U.S.A.

“During this conference there have been many discussions of methods for determining the properties of interstellar grains by means of electromagnetic observations and by investigation of the properties of possible laboratory prototypes. It has not been realized that it may be possible to study interstellar grains directly within the laboratory” (1973)



Heinz Oberhummer
(1941 – 2015)

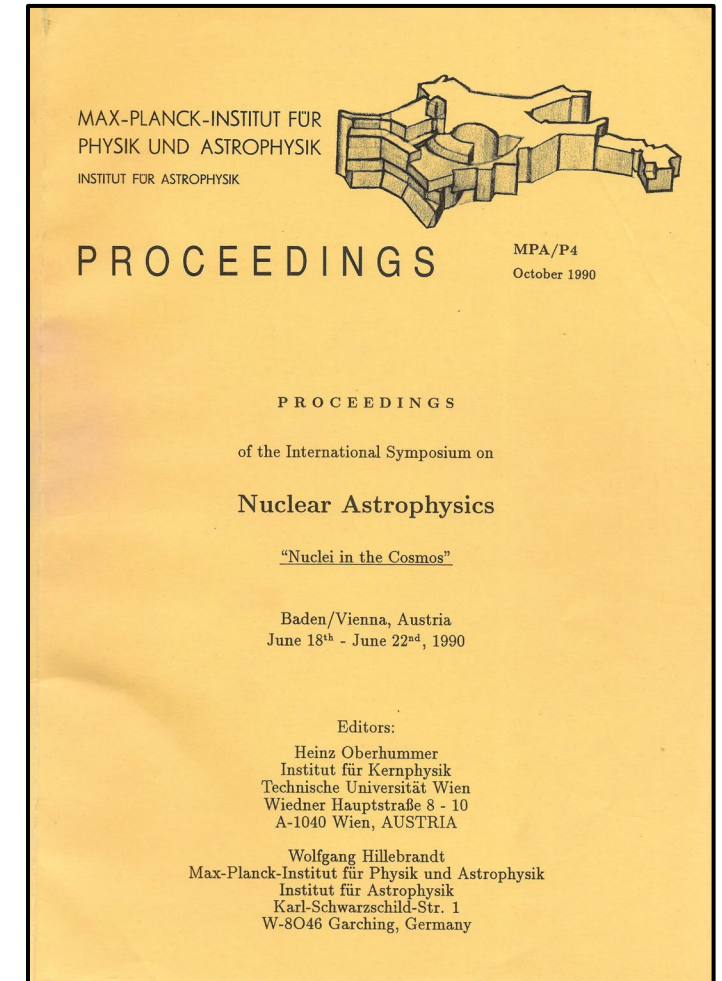


Claus Rolfs
(1941 – ...)

➡ **“Nuclei in the Cosmos”**

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Nuclei in the Cosmos [1st Edition], Baden bei Wien, Austria (June 1990)

Jordi José



Nuclei in the Cosmos [2nd Edition], Karlsruhe, Germany (June 1992)

NIC V



Volos (Greece)

CNuclei **VIII**
OSmos

Fuji-Yoshida (Japan)



The 7th International Symposium on Nuclei in the Cosmos
July 8-12, 2002, Fuji-Yoshida, Japan

Mackinac Island (USA)



CERN (Switzerland)



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Prof. Karlheinz Langanke
Chair, NIC VI (2000)
Åhrus (Denmark)



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Prof. Hendrik Schatz
Chair, NIC X (2008)
Mackinac Island (USA)



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Prof. Gabriel Martinez-Pinedo
Chair, NIC XI (2010)
Heidelberg (Germany)



Vancouver (Canada)



Daejeon (Korea)

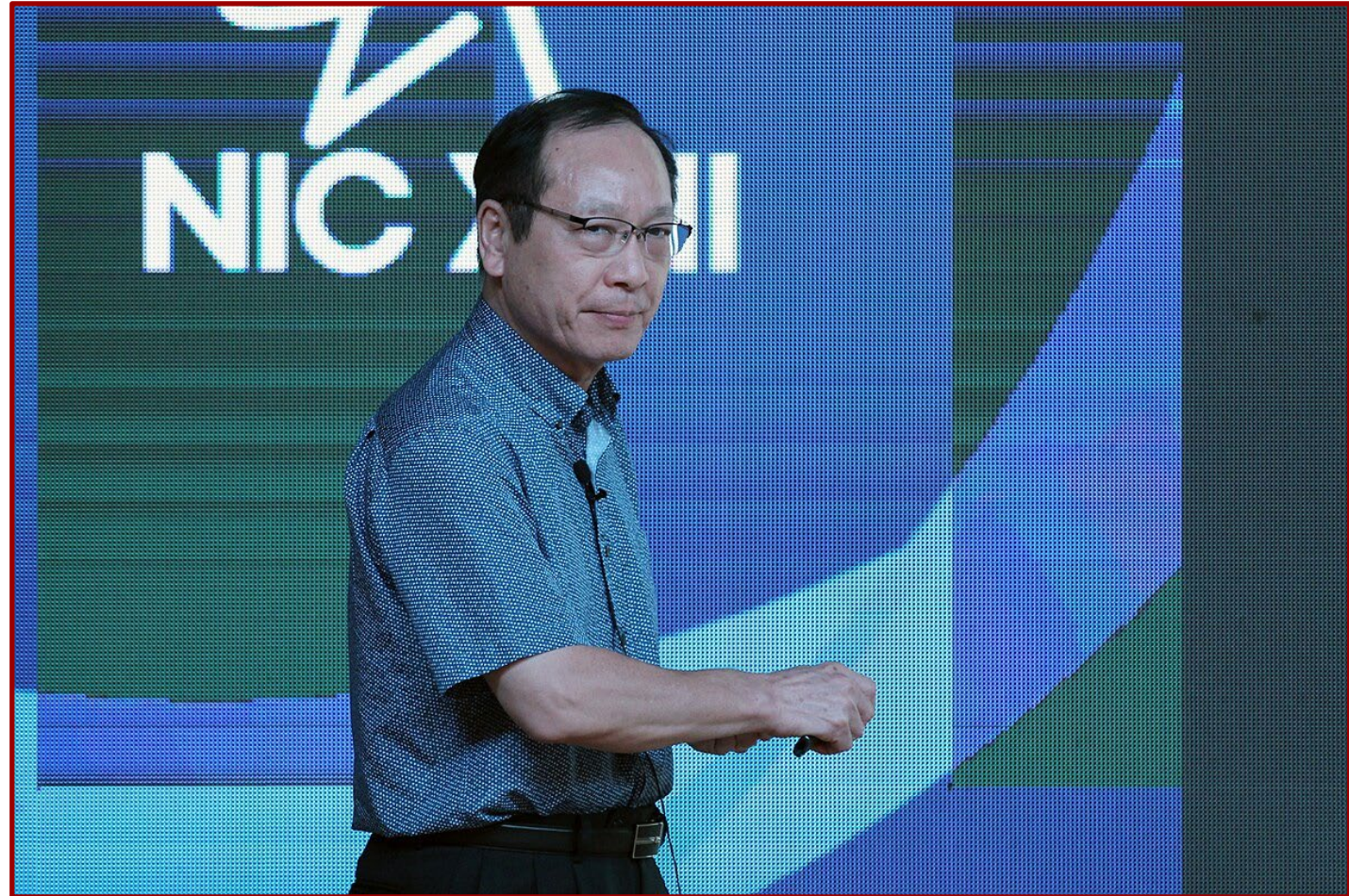


NUCLEI IN THE
COSMOS XV
LNGS - ITALY
24 - 29 JUNE 2018

Gran Sasso (Italy)



Prof. Toshitaka Kajino
Chair, NIC XIV (2016)
Niigata (Japan)



Prof. Weiping Liu

Chair, NIC XVI (2021)

Chengdu (China; online)



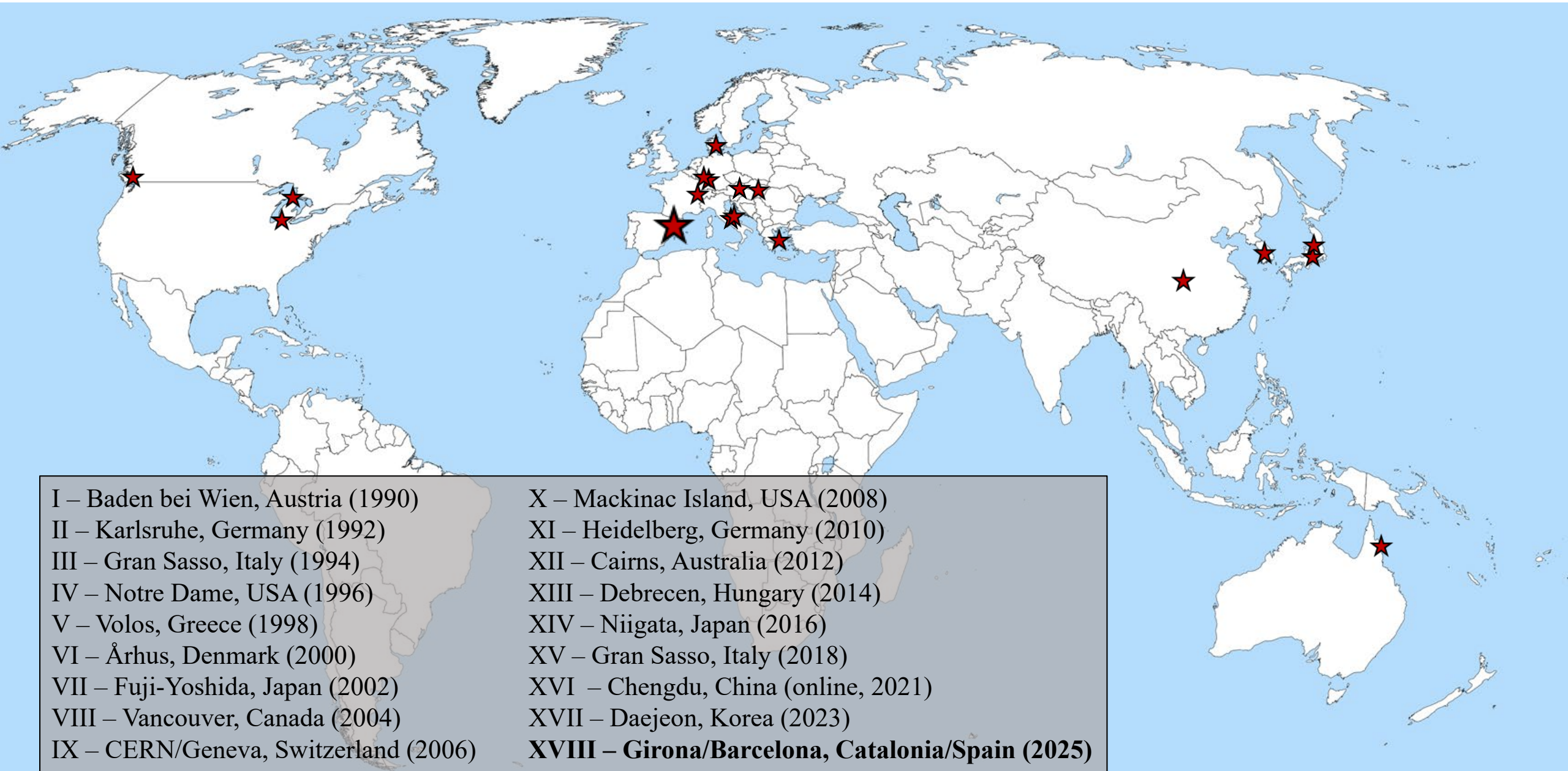
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Prof. Kevin I. Hahn
Chair, NIC XVII (2023)
Daejeon (Korea)



Nuclei in the Cosmos – Sites



The year NIC came of *legal age* (at least by European standards)

**The 18th edition of “Nuclei in the Cosmos”
(NIC) XVIII**



The NIC 2025 School at the Royal Academy of Sciences and Arts of Barcelona (RACAB)



Tuesday, June 10	Wednesday, June 11	Thursday, June 12	Friday, June 13
9:30 – 9:45 OPENING			
9:45 – 10:45 STELLAR EVOLUTION I	9:30 – 10:30 STELLAR EVOLUTION II	9:30 – 10:30 STELLAR EVOLUTION III	
Coffee Break	Coffee Break	Coffee Break	
11:15 – 12:15 EXPERIMENTAL NUCLEAR PHYSICS I	11:00 – 12:00 EXPERIMENTAL NUCLEAR PHYSICS II	11:00 – 12:00 DETECTORS & BEAMS I	11:00 – 12:00 HIGH-ENERGY ASTROPHYSICS I
12:15 – 13:15 NUCLEAR THEORY I	12:00 – 13:00 COSMOCHEMISTRY I	12:00 – 13:00 COSMOCHEMISTRY II	12:00 – 13:00 COSMOCHEMISTRY III
Lunch	Lunch	Lunch	Lunch
15:00 – 16:00 STELLAR EXPLOSIONS I	15:00 – 16:00 NUCLEAR THEORY II	15:00 – 16:00 EXPERIMENTAL NUCLEAR PHYSICS III	15:00 – 16:00 DETECTORS & BEAMS II
16:00 – 17:00 STELLAR EXPLOSIONS II	16:00 – 17:00 SPECTROSCOPY & ABUNDANCES I	16:00 – 17:00 SPECTROSCOPY & ABUNDANCES II	16:00 – 17:00 HIGH-ENERGY ASTROPHYSICS II
17:00 – 18:00 ROUND TABLE – CAREER PATHS	17:00 – 18:00 HANDS-ON SESSION – BIG BANG NUCLEOSYNTHESIS	21:00 – 3:00 OBSERVATIONS WITH NOT TELESCOPE	17:00 – 17:15 WRAP UP ON BBN 17:15 – 18:00 CLOSING CEREMONY

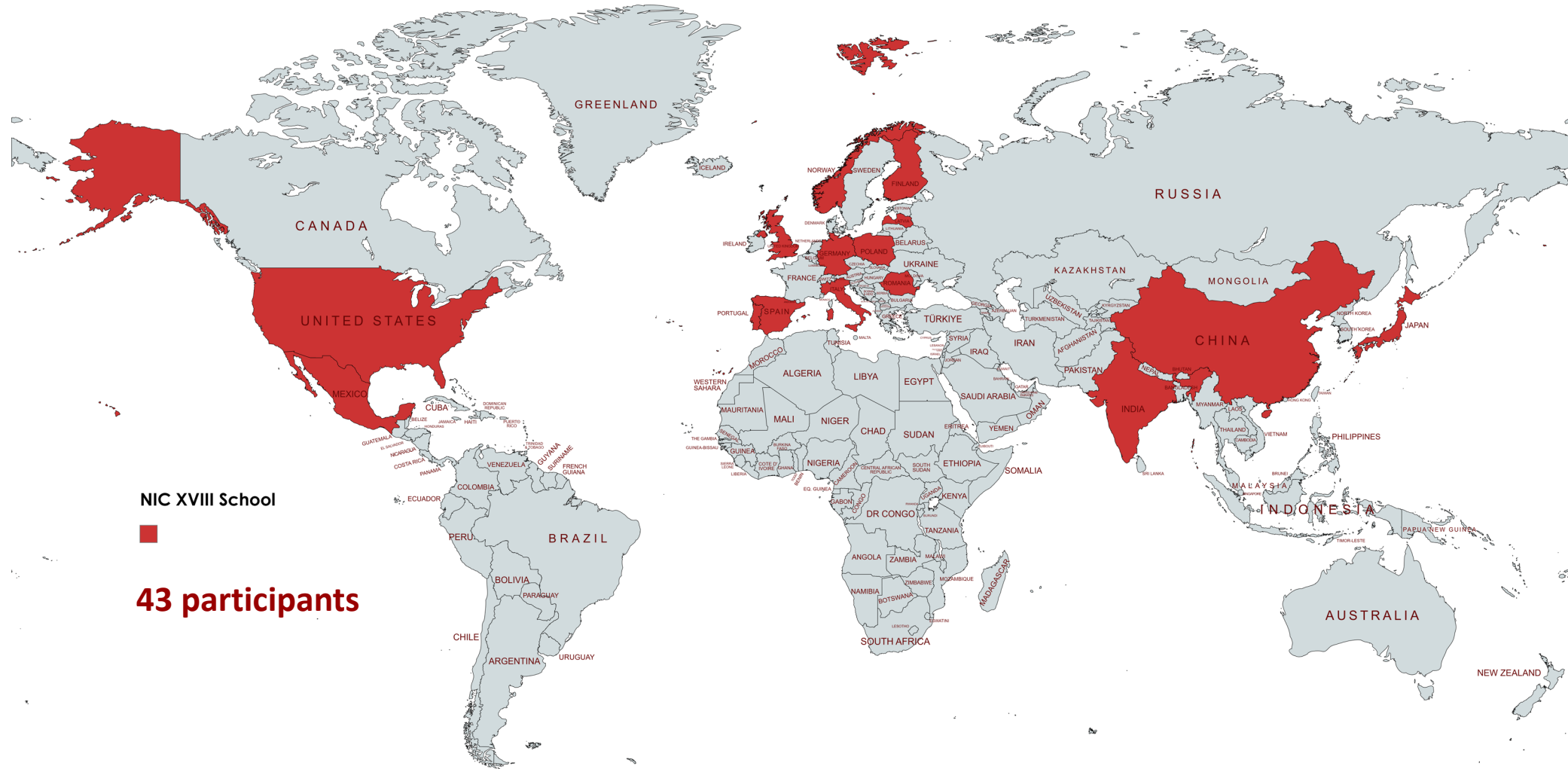
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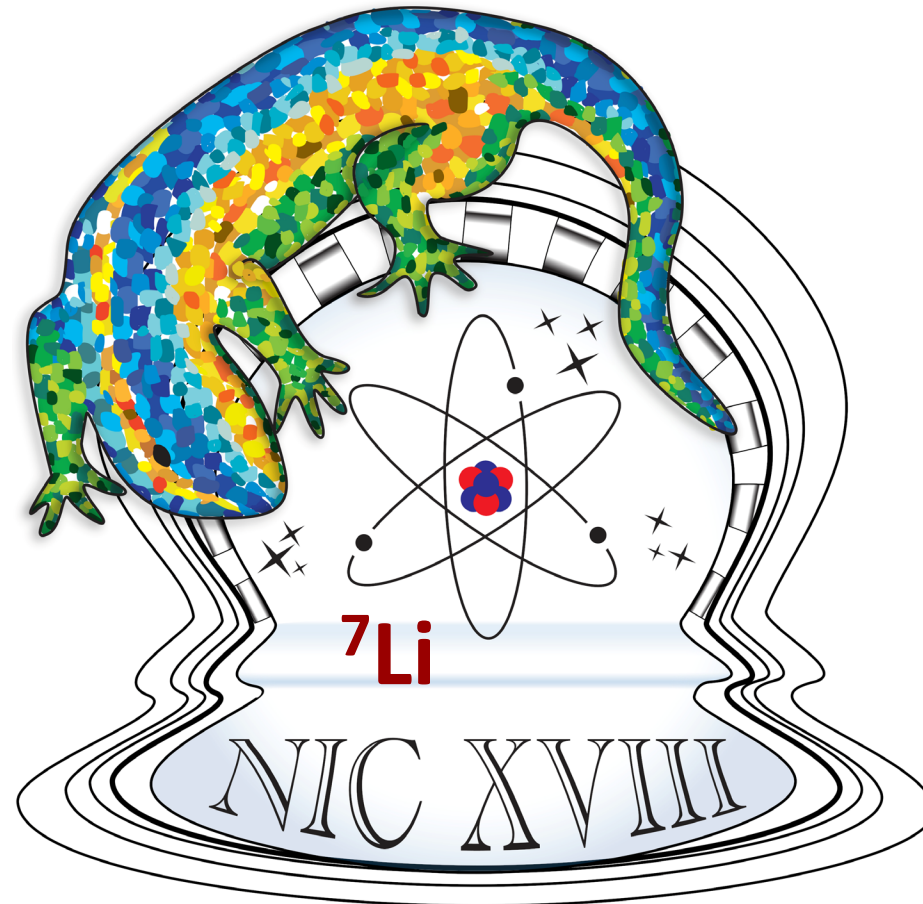


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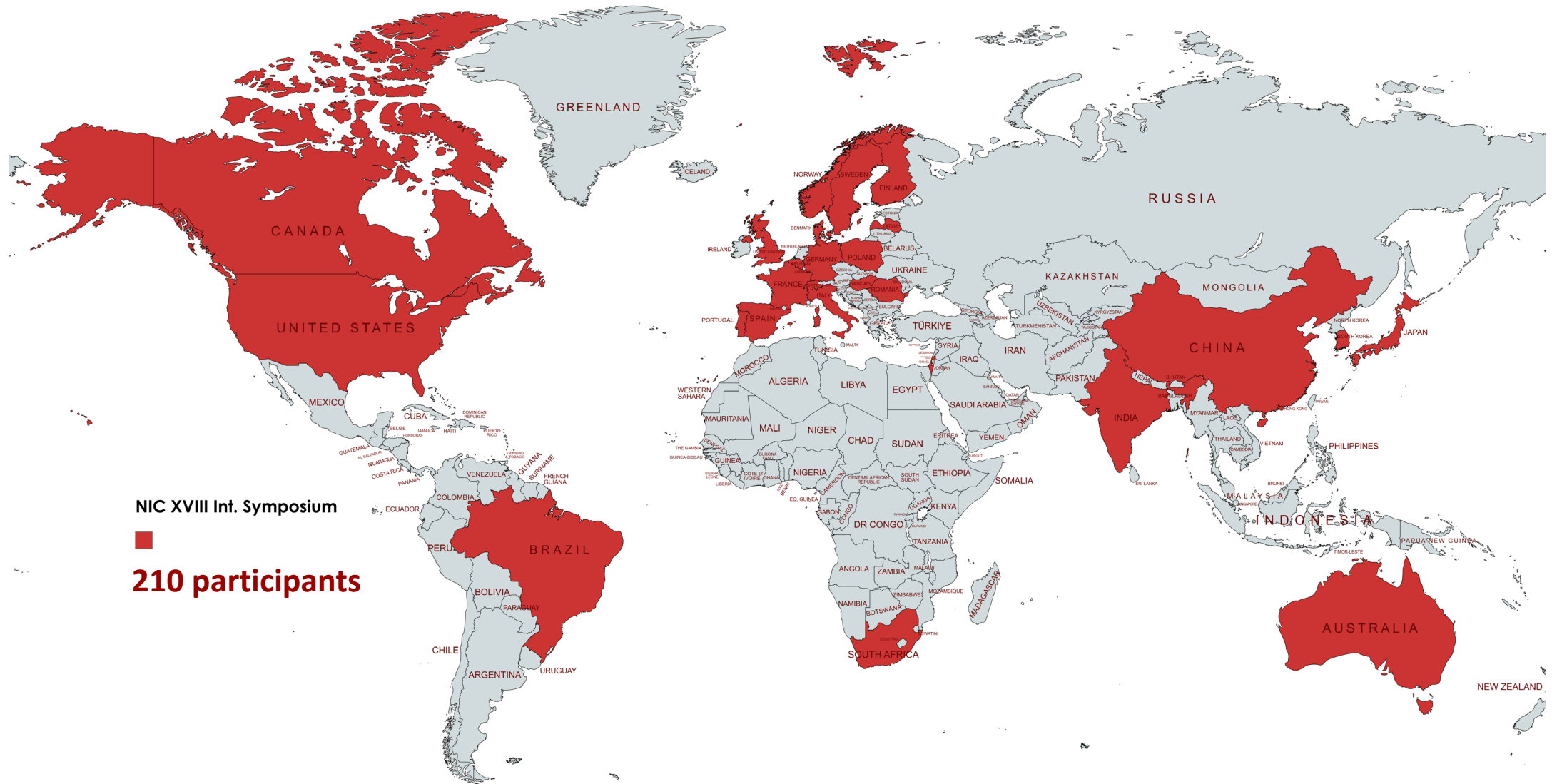
NIC School
Barcelona



NIC Symposium
Girona

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Francisco Calviño
UPC



Yuri Cavecchi
UPC



Margarita Hernanz
ICE-CSIC, IEEC



Jordi Isern
RACAB, ICE-CSIC, IEEC



Jordi José
Chair; UPC, IEEC



Jordi Llorca
UPC



Kelsey Lund
INT/Berkeley



Marina Martínez
GUF



Arnau Rios
UB, ICCUB



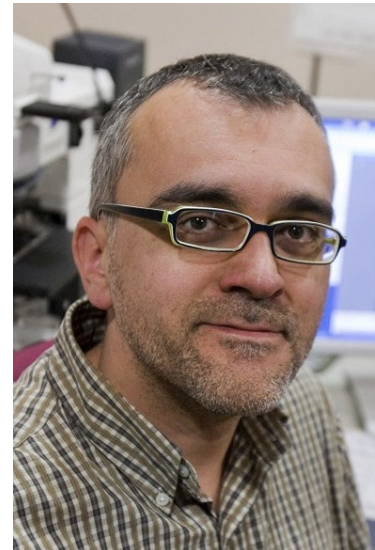
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Laura Tolós
Vice-Chair; ICE-CSIC, IEEC



Josep M. Trigo-Rodriguez
ICE-CSIC, IEEC

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Coffee breaks



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Posters



Practical information

Regular (Plenary) Talks will take place in this room; all talks will be **recorded** (and will be available for the Symposium participants)

Coffee breaks will be served outside the Conference room (ground level)

Lunches will be served at the Poster room (2nd floor)

A **Poster session** has been scheduled for **Tuesday, June 17, at 6pm**. The highlights of each poster will be presented in 1-min talks (6 Flash sessions) distributed between Monday and Tuesday → **Please, send the pdfs with 1 slide to nic2025@ieec.cat** (ex: 175.pdf)

A **Conference Dinner** has been arranged for **Thursday, June 19, at 8:30pm**. Bus service to the venue will be provided



Barcelona
2pm to 8:30pm



Besalú / Rupit
1pm to 8:30pm





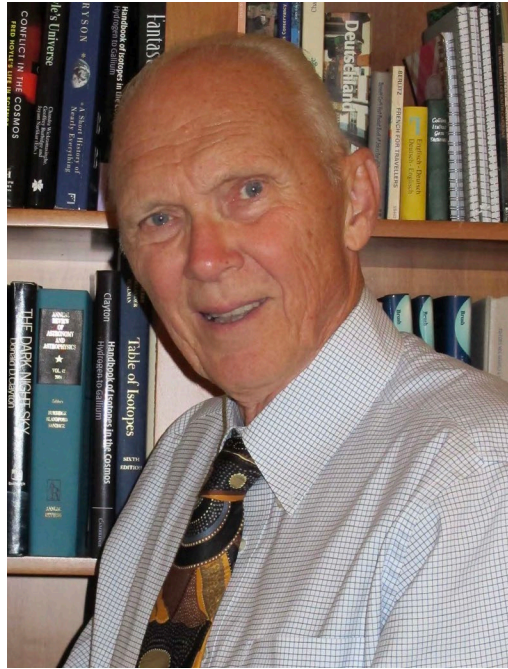
Girona (on foot)
6pm to 7:30pm



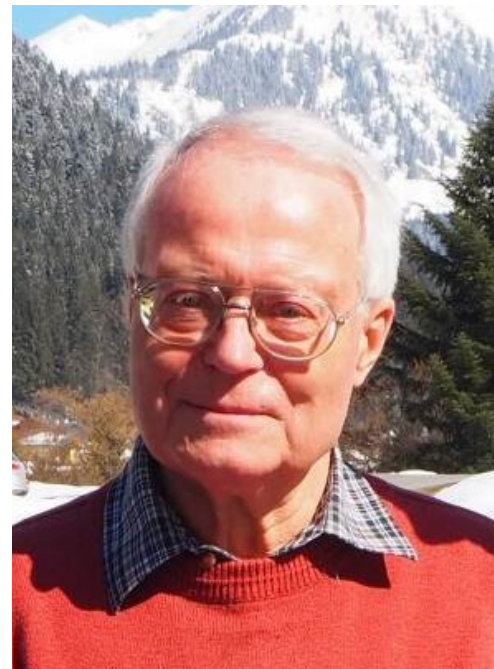
Remembering Roberto, Don, Karl-Ludwig & Ed



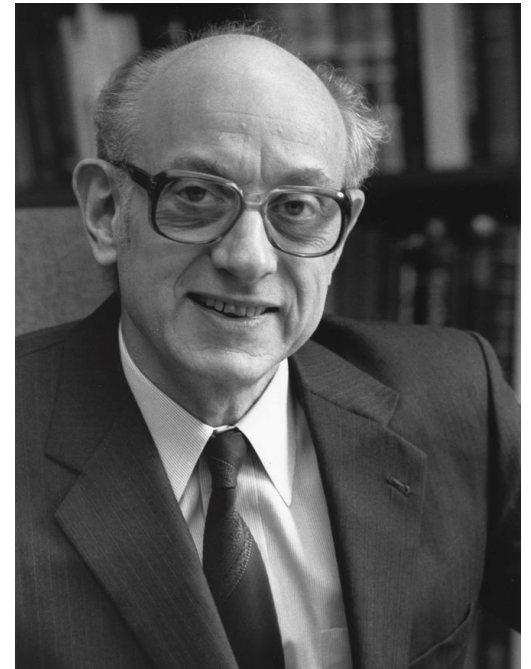
Roberto Gallino
(1939 – 2024)



Donald D. Clayton
(1935 – 2024)



Karl-Ludwig Kratz
(1941 – 2025)



Edward Anders
(1926 – 2025)

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Roberto Gallino
(1939 – 2024)

Ernst K. Zinner
(1937 – 2015)



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2020-2024



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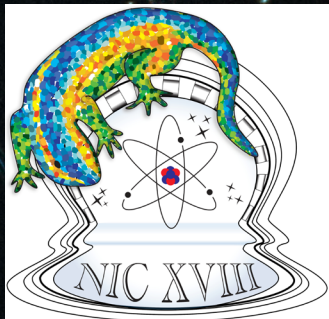
CSIC



Network for Neutrinos,
Nuclear Astrophysics,
and Symmetries

PHYSICS FRONTIER CENTER





International Symposium on
Nuclei in the Cosmos
2025

Wishing you an engaging and insightful Symposium!

Jordi José
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UPC & IEEC, Barcelona