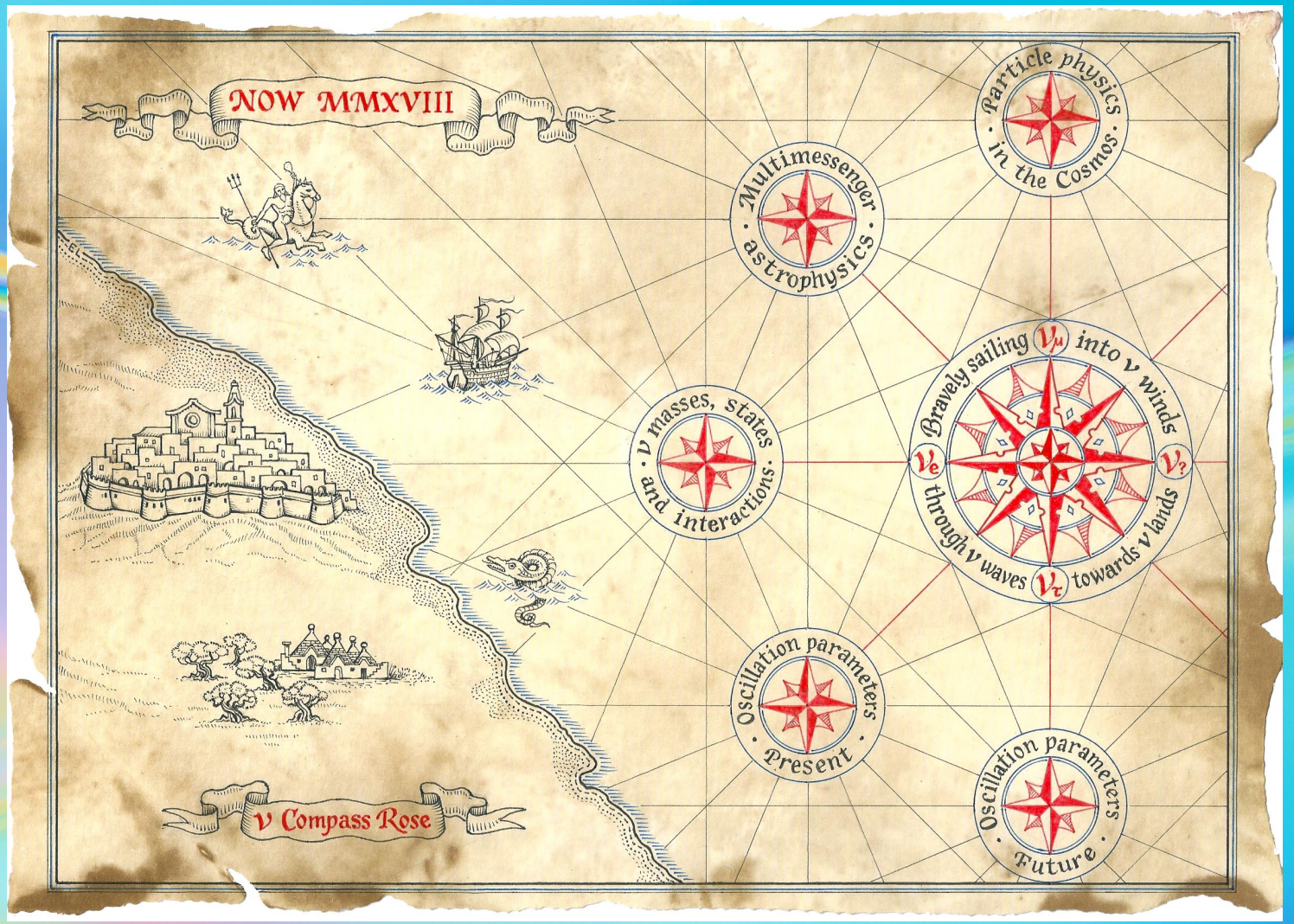
Welcome to NOW 2018 !



A brief historical note on NOW

- This is the tenth edition of the NOW Conference series

- In order to trace the origin of NOW, we have to go back to the '98 in Takayama (twenty years ago) ….

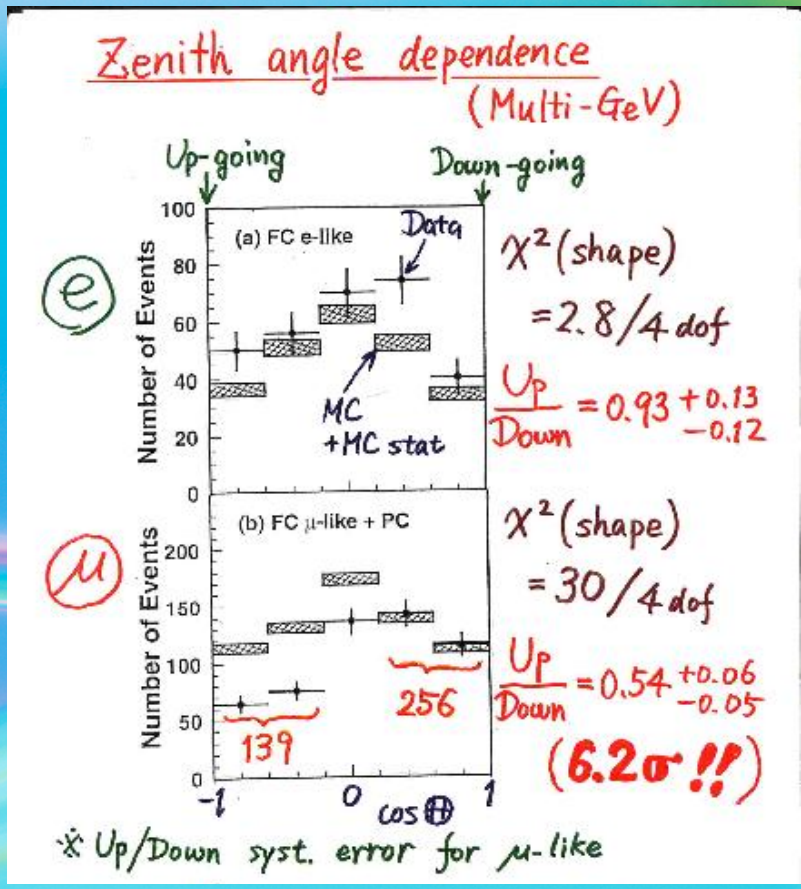
- At the "Neutrino '98", in Takayama, on behalf of the SuperKamiokande Collaboration, a young physicist

  Takaaki Kajita

  shows the first clear evidence of neutrino oscillations in atmospheric neutrinos!

  6.2σ !!

  Nobel prize in 2015 !



- It is just at Takayama that a group of European physicists decide to organize in Europe, three months later, a topical Workshop on "Neutrino Oscillations", **NOW** !

- The first edition has been held in Amsterdam (NIKHEF, 1998)

What remains (to my knowledge) of the **first edition** …

High Energy Physics - Phenomenology

Summary of the NOW'98 Phenomenology Working Group

S.M. Bilenky, A. Geiser, C. Giunti, S. Mohanty, S. Otwinowski, S. Sarkar, Z.Z. Xing

(Submitted on 4 Jun 1999 (v1), last revised 7 Jun 1999 (this version, v2))

Summary of the Phenomenology Working Group at the Europhysics Neutrino Oscillation Workshop (NOW'98), 7-9 September 1998, Amsterdam.

Comments: 66 pages
Subjects: **High Energy Physics - Phenomenology (hep-ph)**
Cite as: **arXiv:hep-ph/9906251v2**

Submission history

From: Carlo Giunti [view email]
[v1] Fri, 4 Jun 1999 12:39:53 GMT (322kb)
[v2] Mon, 7 Jun 1999 15:29:09 GMT (327kb)

Which authors of this paper are endorsers?

- The second edition (2000) has been organized in Conca Specchiulla (Otranto), with the typical structure of a conference …

NOW 2000

Europhysics Neutrino Oscillation Workshop

Conca Specchiulla (Otranto), September 9-16, 2000

Scientific Advisory Committee

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email: now2000@ba.infn.it

Proceedings appeared as Nucl. Phys. B (Proc. Suppl.) 100 (2001)

- The third edition (2004), always in Conca Specchiulla, was described as an adventurous trip around known and unknown lands of the neutrino world…

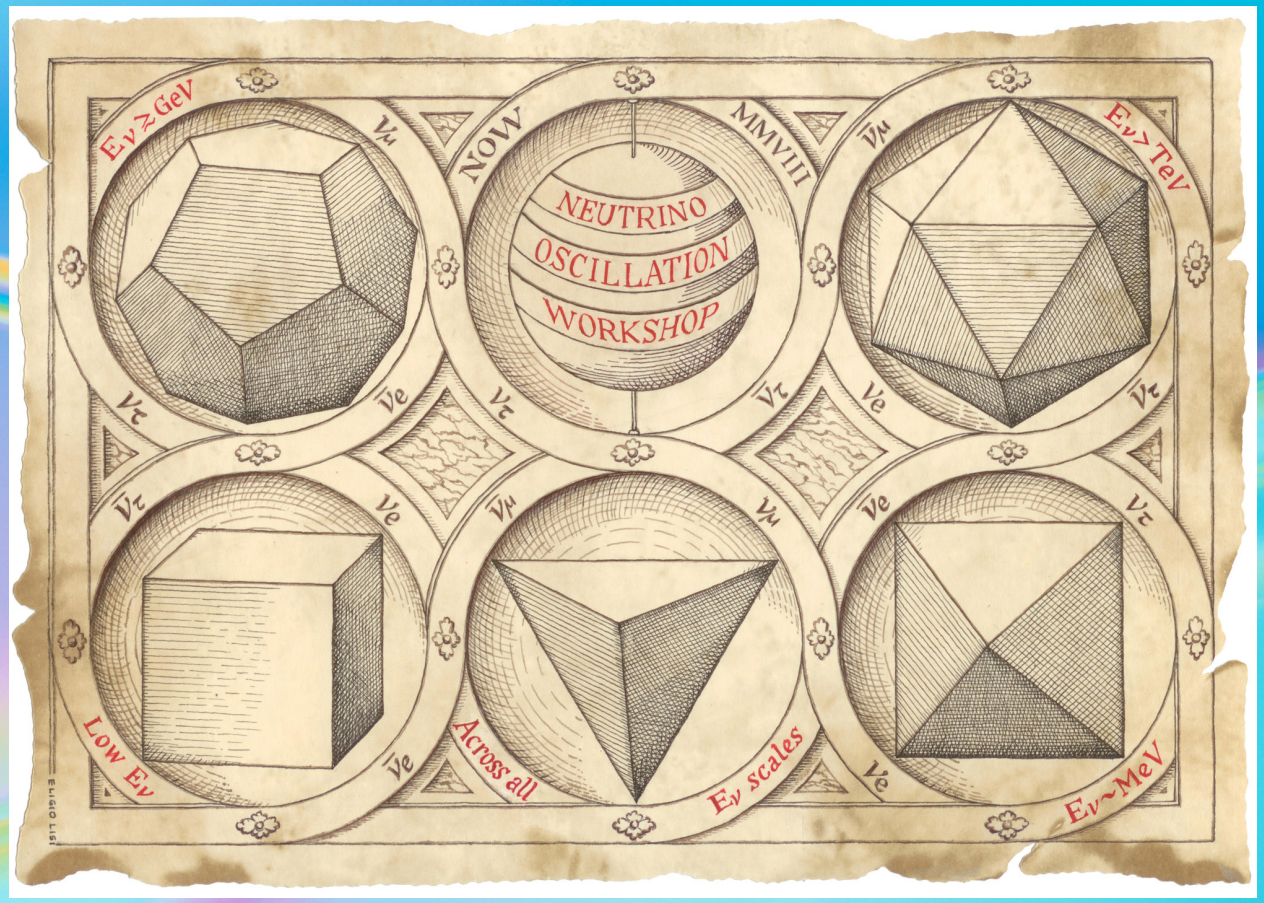
Proceedings appeared as Nucl. Phys. B (Proc. Suppl.) 145 (2005),

- The fourth edition (2006) has been introduced through an armillary sphere, whose "armillae" were called to represent different regions of a "neutrino-centered" system …

Proceedings appeared as Nucl. Phys. B (Proc. Suppl.) 168 (2007).

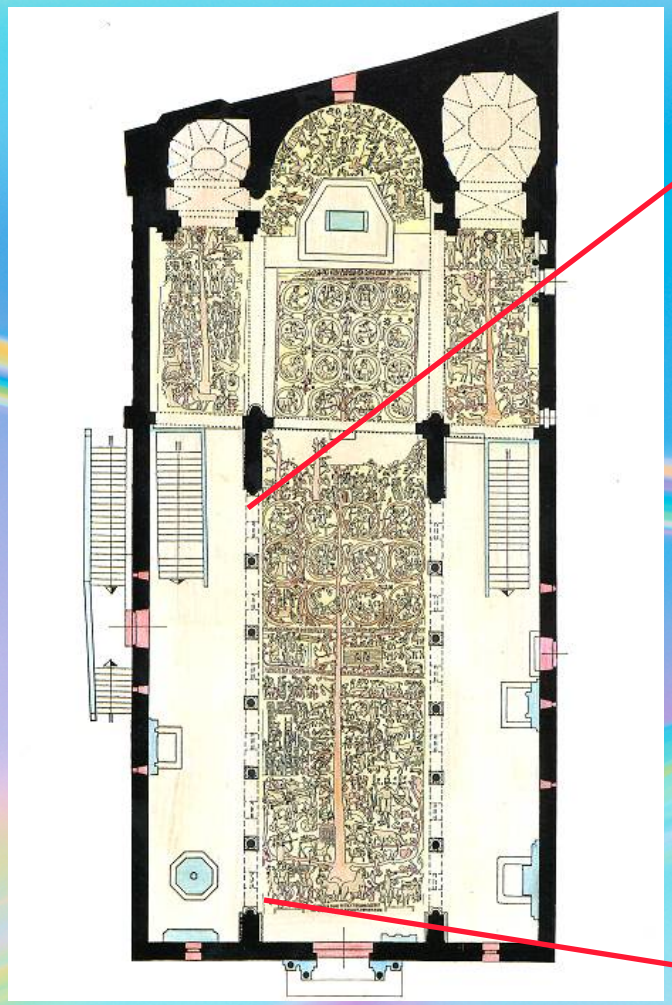
In 2007 a reason of pride for NOW …

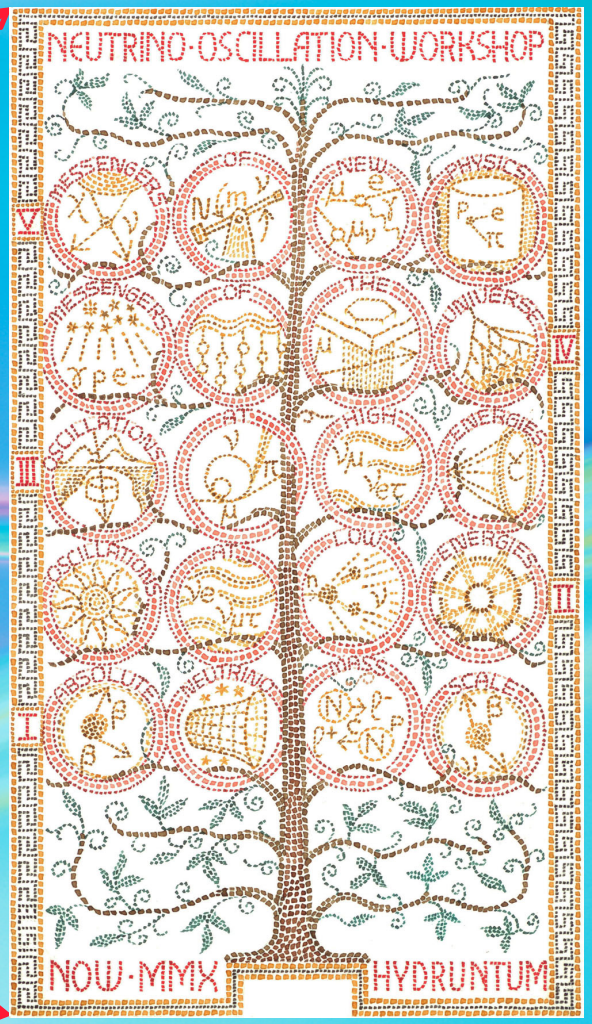
- For the fifth edition (2008) we have chosen as theme the five Platonic solids, by relating them to different sectors of the neutrino physics …



Proceedings appeared as Nucl. Phys. B (Proc. Suppl.) 188 (2009)

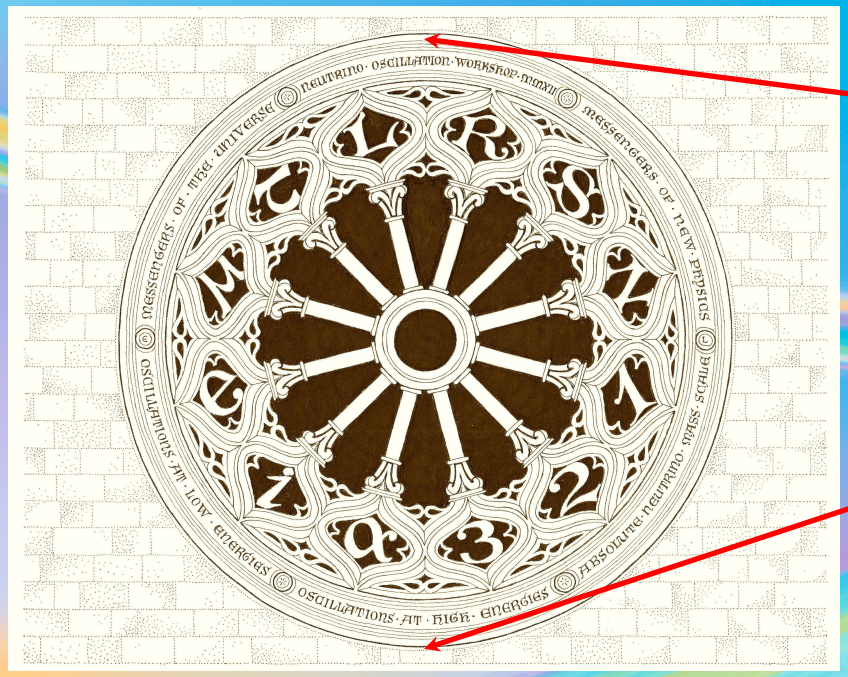
- For the sixth edition (2010) the theme has been inspired by the Tree of Life, the mosaic of the Otranto Cathedral …

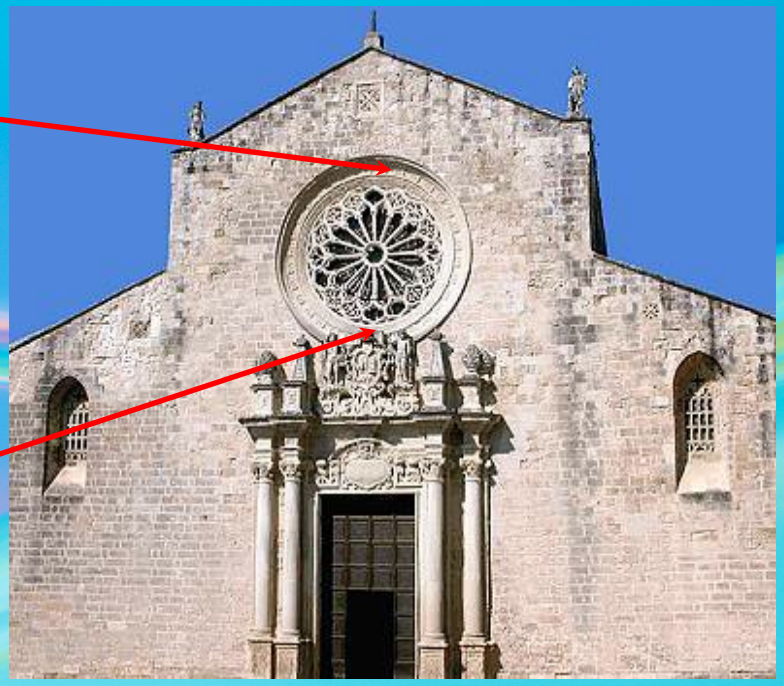




Proceedings appeared as Nucl. Phys. Proc. Suppl. 217 (2011).

- The poster of the seventh edition (2012) was inspired to the Rose Window of the Otranto Cathedral, re-interpreted as a Neutrino Rose Window …



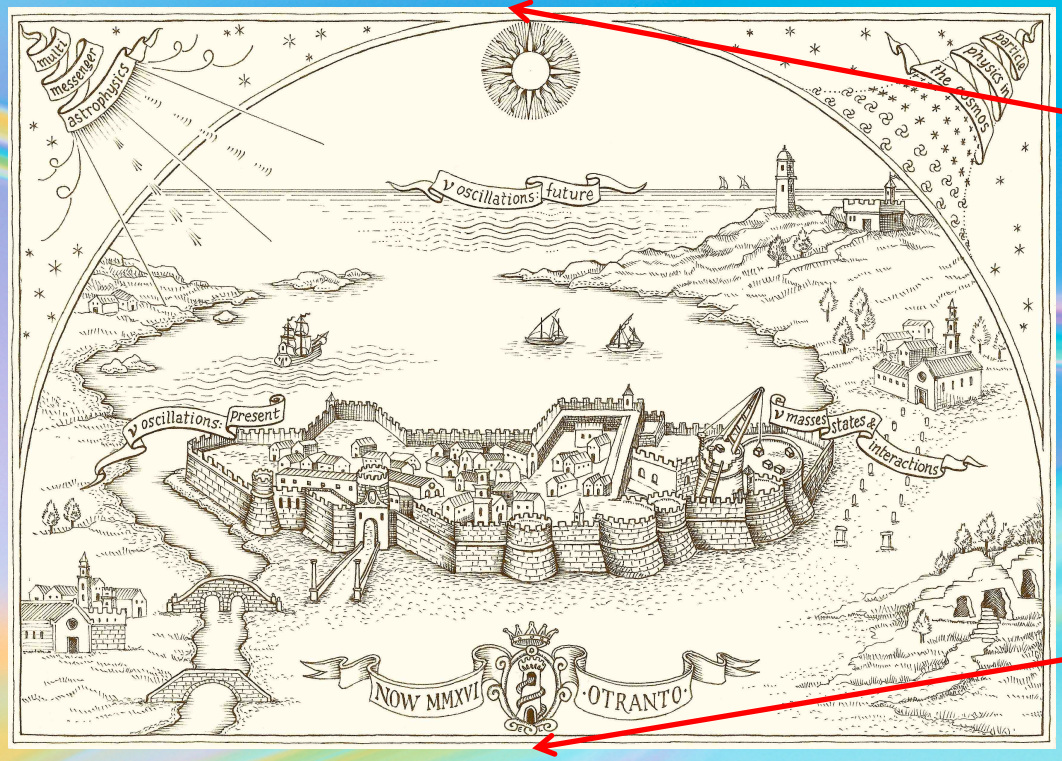


Proceedings appeared as Nucl. Phys. Proc. Suppl. 237-238 (2013).

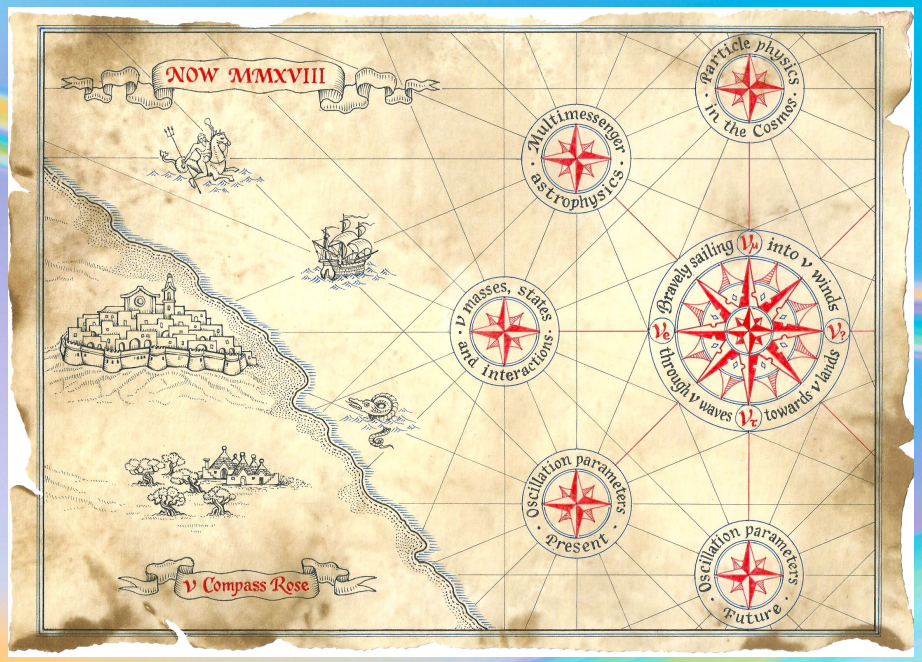
- The theme of eighth edition (2014) was inspired to an ancient apulian calyx krater, situated in the Sully wing of the Louvre Museum.

Proceedings appeared as Nucl. Part. Phys. Proc. 265-266 (2015).

The last edition of NOW (2016) has been held in Otranto. The poster was then inspired to a XVIII century view of Otranto, with its harbour and its Aragon Castle.

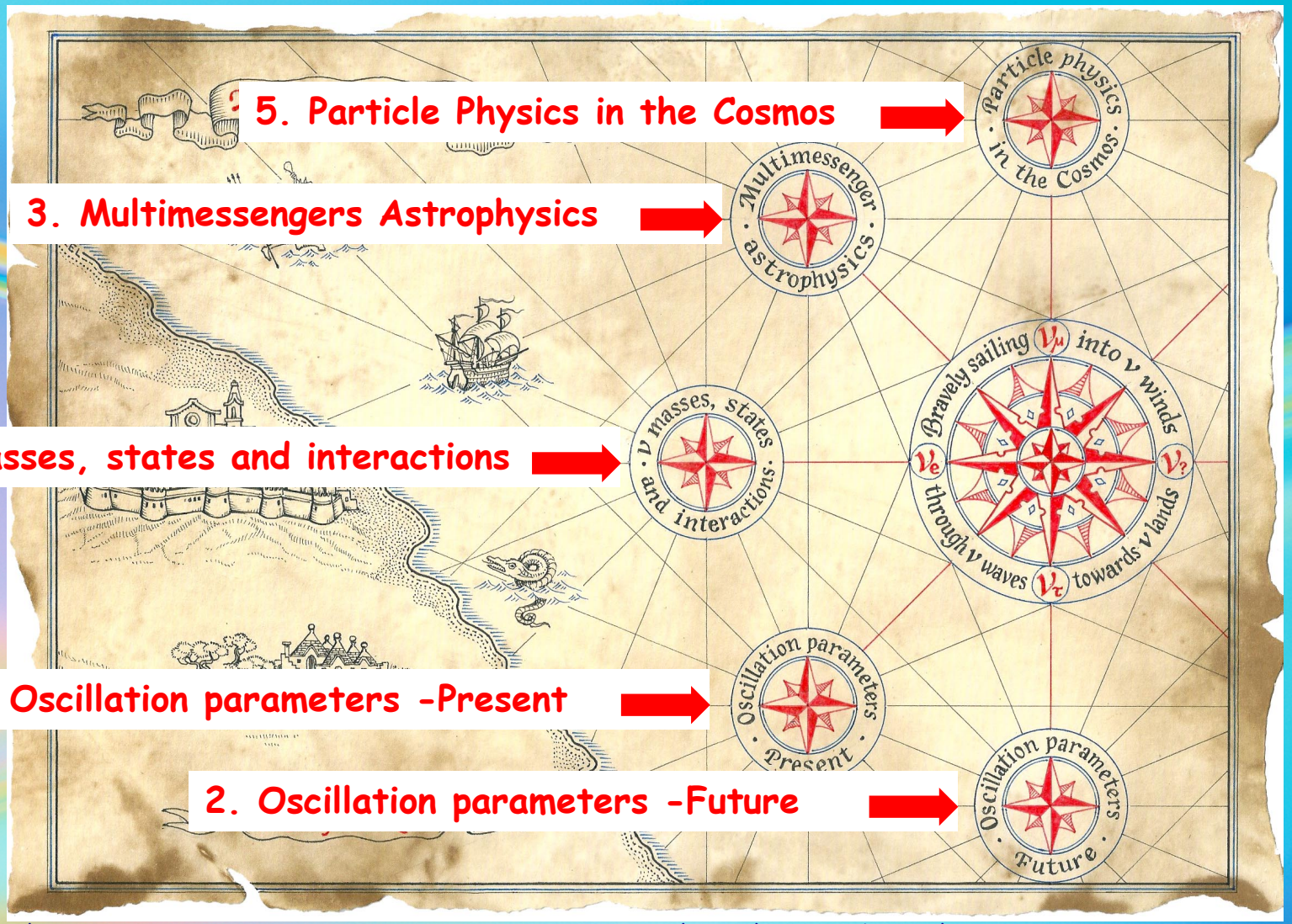


The present edition of NOW is located in Rosa Marina, near Ostuni. The poster is inspired to the old coastal maps (portulans), where a Compass Rose (or Wind Rose) describes with its grid the different navigation lines.

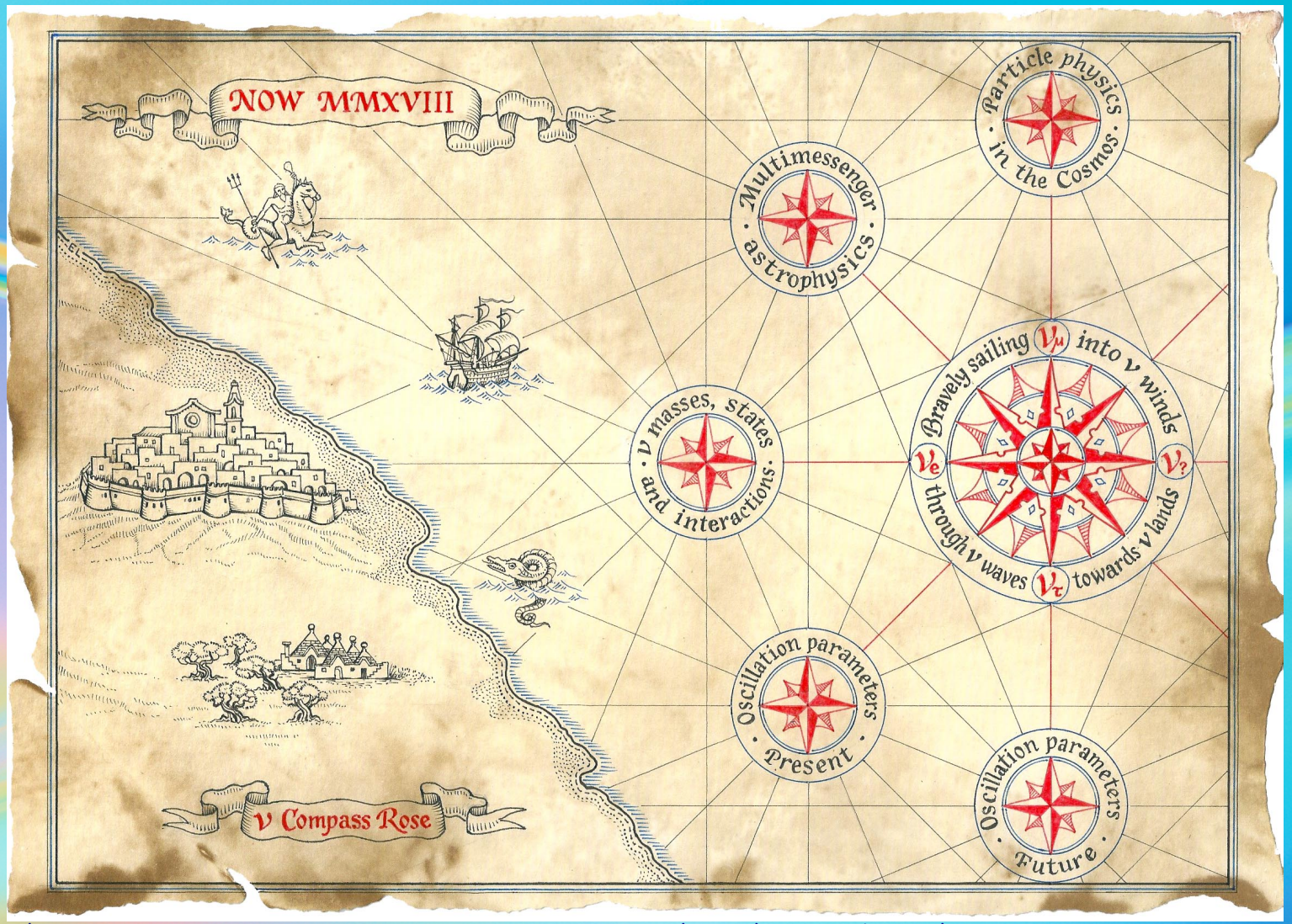


On the left you see an old original artifact: the portulan nautical chart of the Mediterranean Sea (second quarter of 14th century).

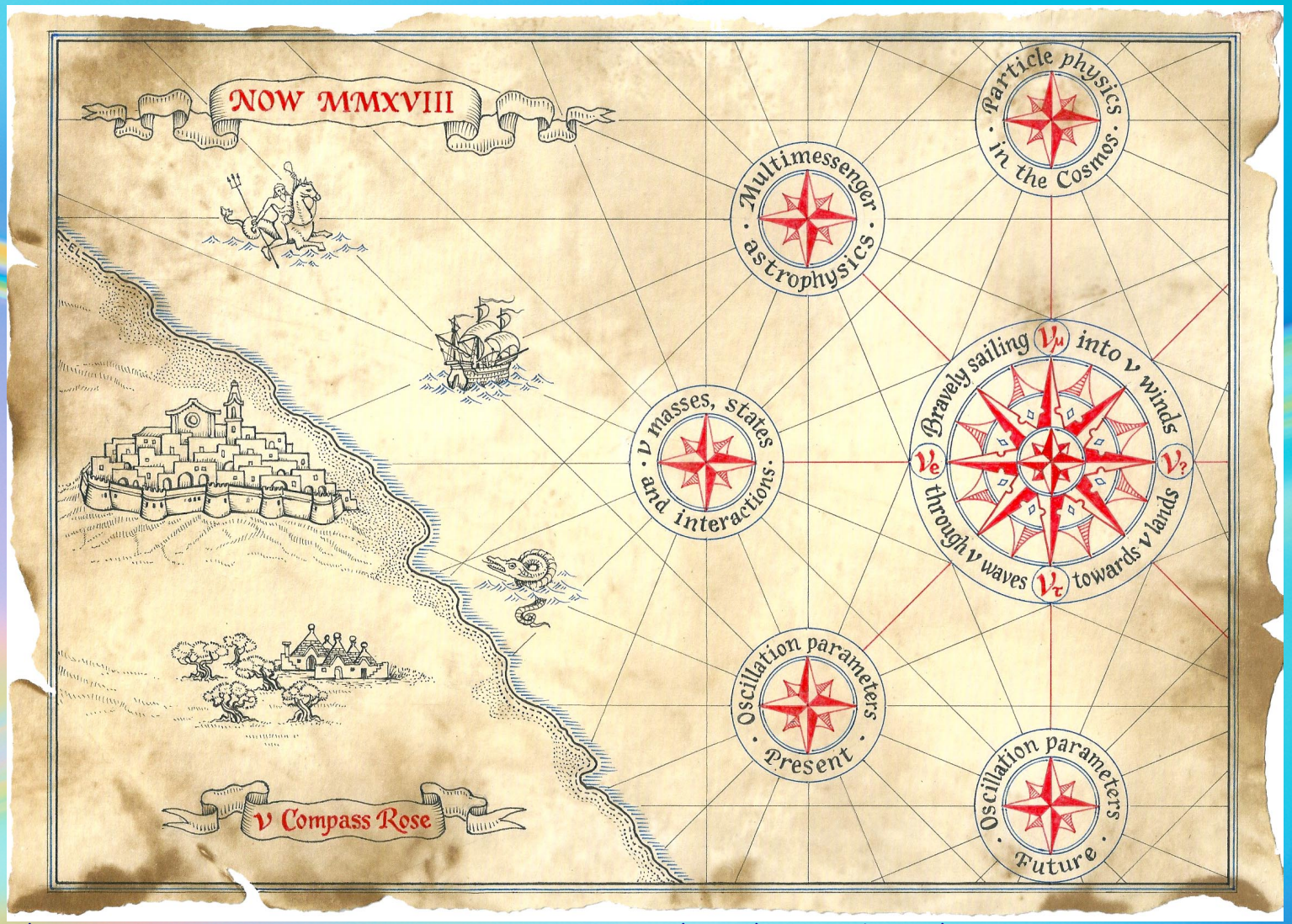
In our map the five small wind roses identify the five sectors of NOW, the navigation lines representing the links among the five sectors.



In the map, the inland town is an imagin of Ostuni, known as the "White Town", the landscape shows its characteristic elements known as "trulli", and some centuries-old olive trees.

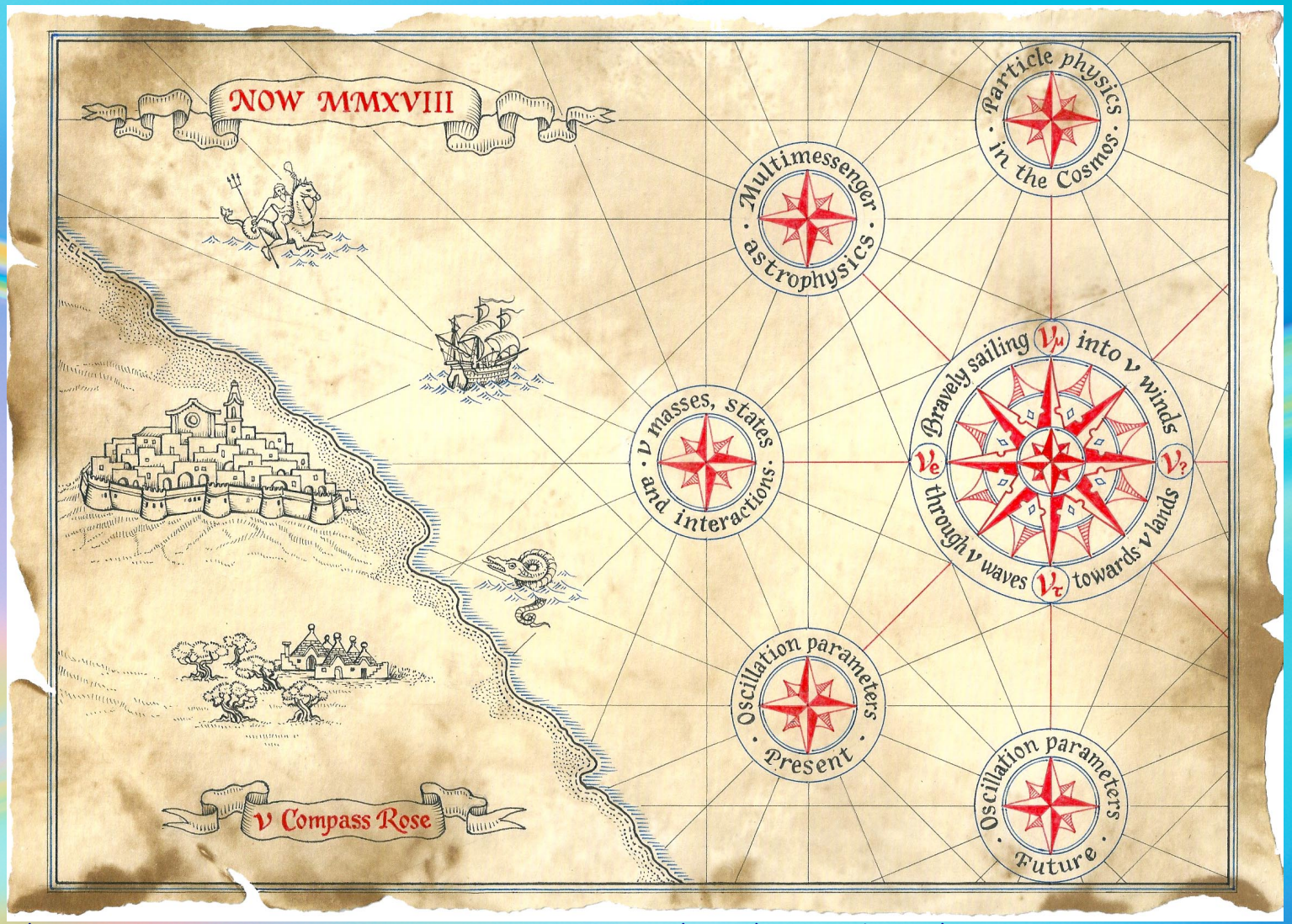


In the sea, three symbolic figures: a sailing ship, Poseidon (the Sea King) and a marine monster. They are called to describe the navigation of neutrino physics toward new horizons, with the favor of Poseidon, but sometimes opposed by terrible monsters.

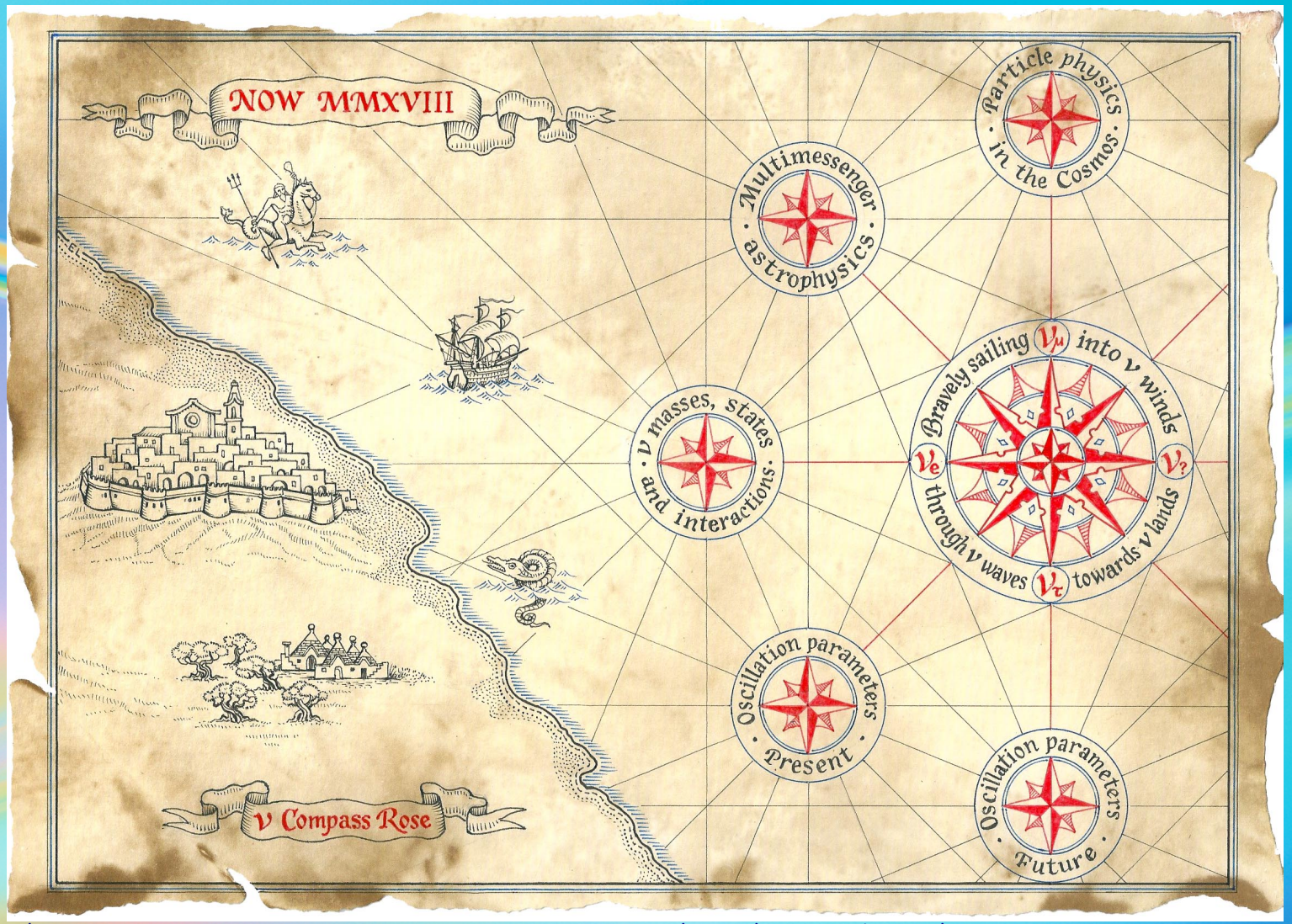


The large wind rose contains a sort of message addressed to all of us: we can read

Bravely sailing into ν winds – through ν waves – towards ν lands



Finally, the four main directions of the large wind rose are identified in terms of ν_e, ν_μ, ν_τ and $\nu_?$. Three are rather familiar directions, the last goes beyond the known sea, towards unknown lands.



The usual ritual Question

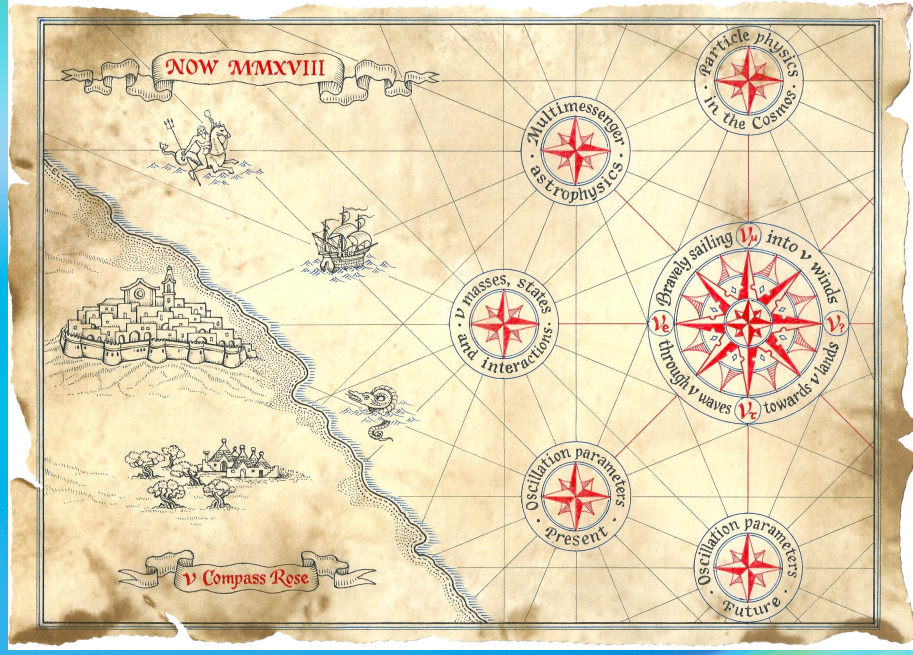
Who is the author of the drawing of the poster (and of all the posters of the previous editions of NOW) ?

… going on the upper left of the drawing, not far from the Poseidon figure …

Eligio Lisi !

A quick look to the NOW program

First Session

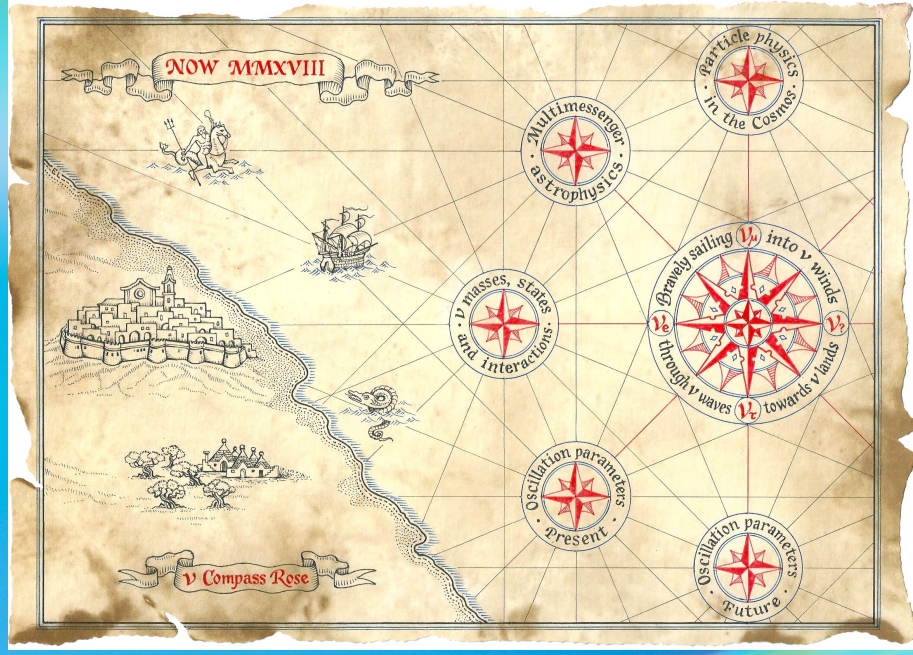


"Oscillation parameters: present"

Conveners: Inès Gil-Botella, Ioshi Uchida

- T2K latest results — Eric Zimmerman
- NOVA latest results — Matthew Strait
- Atmospheric neutrino oscillations — Cristovao Vilela
- Reactor neutrino oscillations — Zhe Wang
- Reactor spectral shape challenges — Patrick Huber

Second Session



"Oscillations parameters: future"

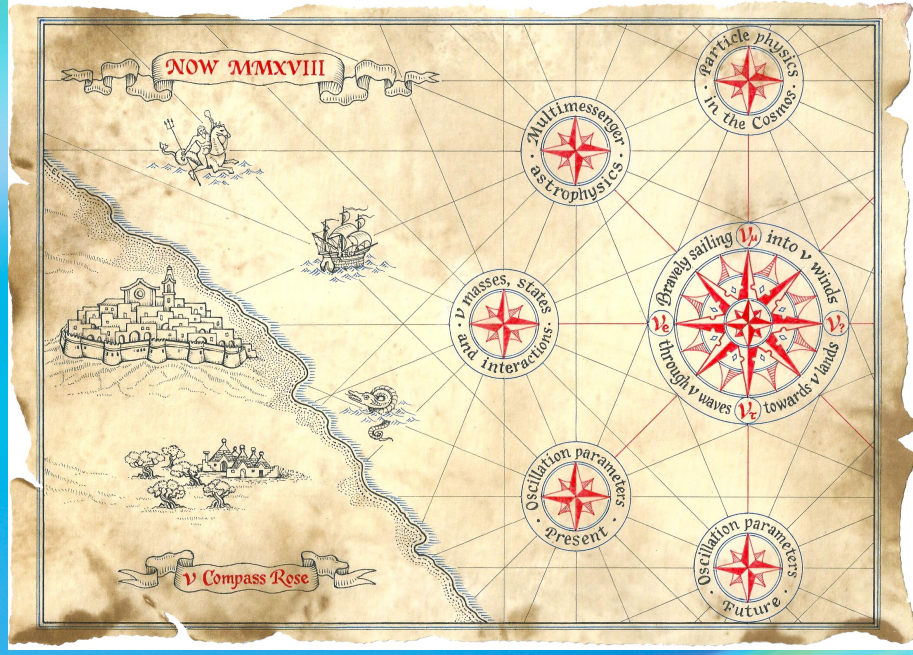
Conveners: Elizabeth Worcester, Jacobo Lopez-Pavon

- Neutrino masses and mixings: Theory challenges — José Valle
- DUNE: Prospects for CP Violation and Mass Ordering — Nuno Barros
- JUNO Oscillation Physics Program — Gioacchino Ranucci
- Prospects for Mass Ordering via atmospheric neutrinos — Dorotea Samtleben
- The Hyper-Kamiokande Project — Yuri Kudenko

Third Session

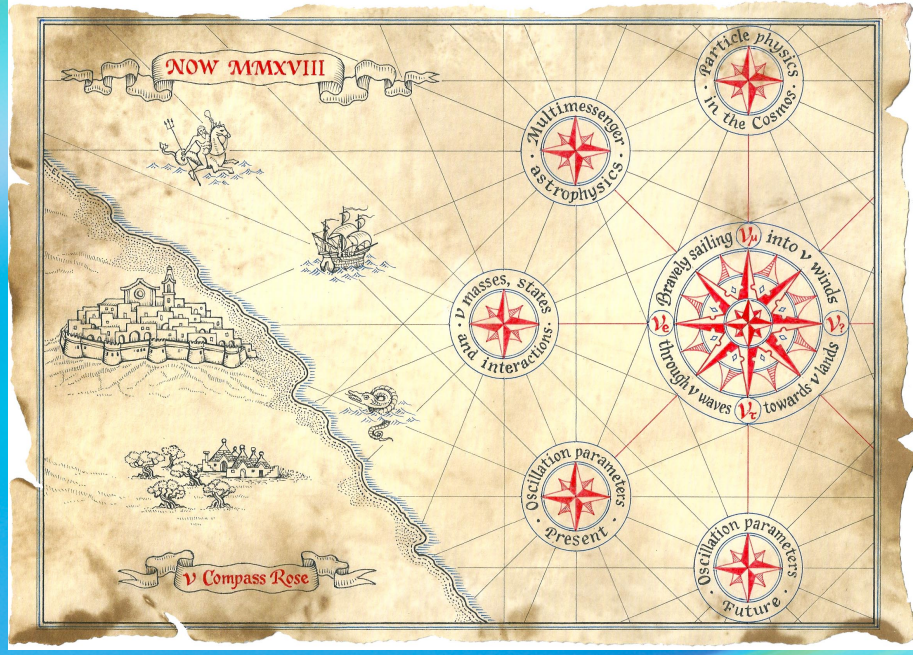
"Multimessenger astrophysics"

Conveners: Manuela Vecchi, Markus Ahlers



- Highest-energy neutrinos: Detection and interpretation — Claudio Kopper
- Gravitational Waves detection in a multimessenger context — Ian Harry
- Gamma rays in a multimessenger context — Matthias Kadler
- Charged cosmic rays — Giovanni Ambrosi
- Multimessenger physics from astrophysical sources — Shunsako Horiuchi

Fourth Session



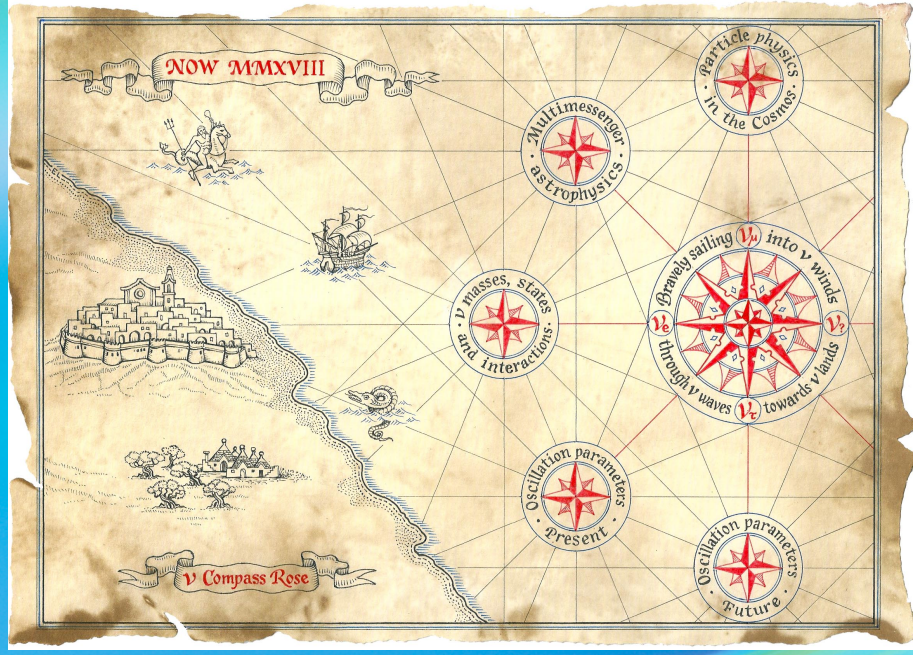
"Neutrino masses, states and interactions"

Conveners: Monica Sisto, Stefano Gariazzo

- New neutrino states and interactions — Manfred Lindner
- Light sterile neutrino oscillation searches — Victoriya Sergeyeva
- Direct neutrino mass searches — Guido Drexlin
- Neutrinoless double beta decay: Experimental challenges — Konstantin Gusev
- Neutrinoless double beta decay: Theory challenges — Fedor Simkovic

Fifth Session

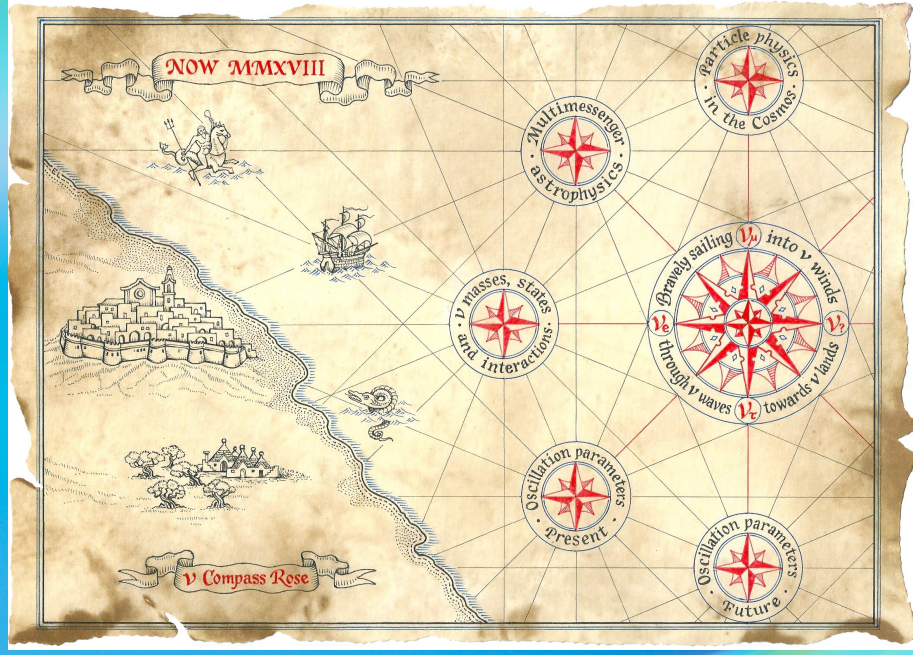
"Particle physics in the Cosmos"



Conveners: Karoline Schaeffner, Basudept Dasgupta

Neutrinos in Cosmology	Yvonne Wang
Learning about Dark Matter from the Stars	Joachim Kopp
Dark matter and neutrinos	Carsten Rott
Alternative dark matter candidates	Javier Redondo
Coherent neutrino-nucleus scattering	Grayson Rich

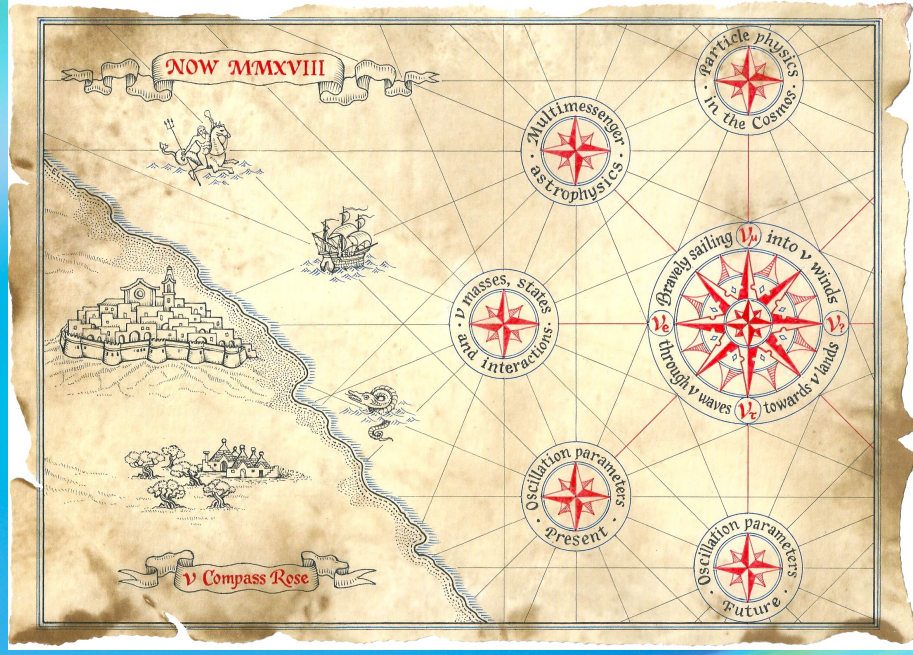
Concluding Talk



by

John Beacom

Social Event



Wednesday 12th in the evening

PIZZICA !

A popular italian folk dance, originally from the Salento peninsula, but later widespread in all Apulia.

There are several traditional pizzica groups. Our group is one of the best!

I Scianari!

scianaro = of unstable mood

The excursions

Excursion to Ostuni
(afternoon Tuesday 11th)

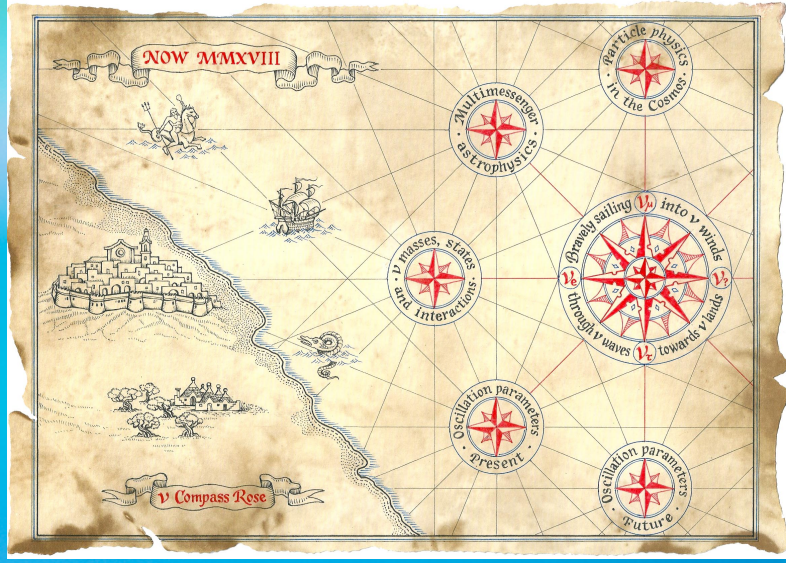
A few images of Ostuni, known as the "White Town"

Panoramic view of Ostuni

The cathedral of Ostuni

Ostuni by night

Full Day Excursions
(Thursday 13th)



Two alternatives:

- North Tour: visit of Polignano a mare, Trani, Castel del Monte.
- South Tour: visit of Lecce, Otranto, and Zinzulusa grotto.

➡ Make your choice and write your name in the corresponding list at the secretariat asap.

North Tour

(on the map)

- Polignano a mare
- Trani
- Castel del Monte

lunch at
Agriturismo Montegusto
near to
Castel del Monte

Polignano a mare

With its crystal waters, Polignano is known as the "Pearl of the Adriatic Sea".

Probably this is the site of the ancient Greek city of Neapolis

Trani

In particular known for its Cathedral, dedicated to Saint Nicholas the Pilgrim, a Greek who died in Trani in 1094 during his pilgrimage to Rome.

The cathedral lies on a raised open site near the sea, and looks as a gigantic white sail on the sea.

Castel del Monte

Considered to be no more than a "hunting lodge" of Frederick II, but there is no proof of that.

One of the most fascinating castles in the world, with its magic atmosphere.

Agriturismo Montegusto
(Castel del Monte)

Site of the lunch of the North Tour

South Tour

(on the map)

- Lecce
- Otranto
- Zinzulusa

lunch at
Masseria Gattamora

Lecce

A few images of what you can see in Lecce, the baroque capital of the South of Italy …

Santa Croce

Sant'Oronzo

Roman Theatre

Duomo by night

Otranto

The Cathedral, with its fantastic mosaic and its rose window

The old fortress

The Aragon Castle

The church of S. Pietro, with its byzantine frescoes

Zinzulusa grotto

One of the Salento's most impressive Karstic phenomena

Masseria Gattamora

(Uggiano La Chiesa)

Site of the lunch of the South Tour

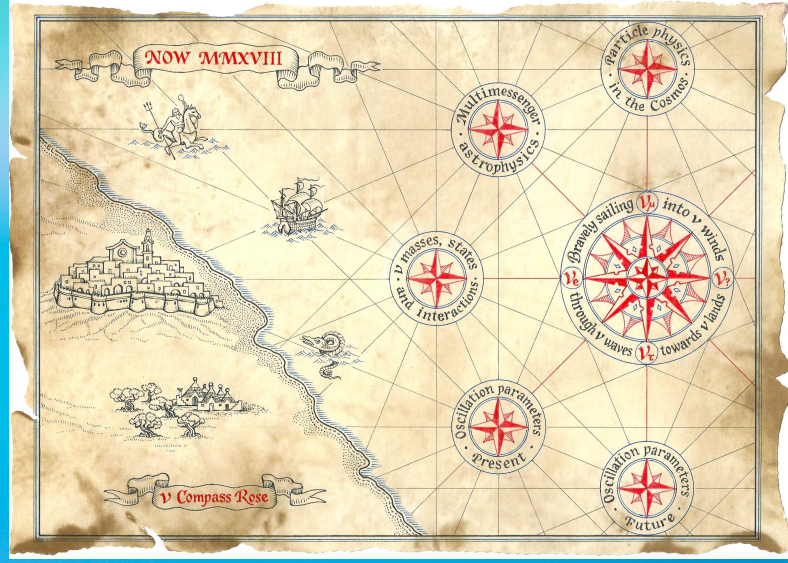
Free time in Rosa Marina

Between plenary and parallel sessions you have about 4 hours of free time.

The Resort is very near to the seaside: its private beach is at walking distance (~ 300 m) (see map).

The beach can also be reached by means of a small "train".

You can freely make use of the beach umbrellas/chairs/beds, except for the first four rows, reserved to the other Resort guests.



We hope you will enjoy

our Workshop, our Land and our Sea !