

NewCompStar: a brief overview

Luciano Rezzolla



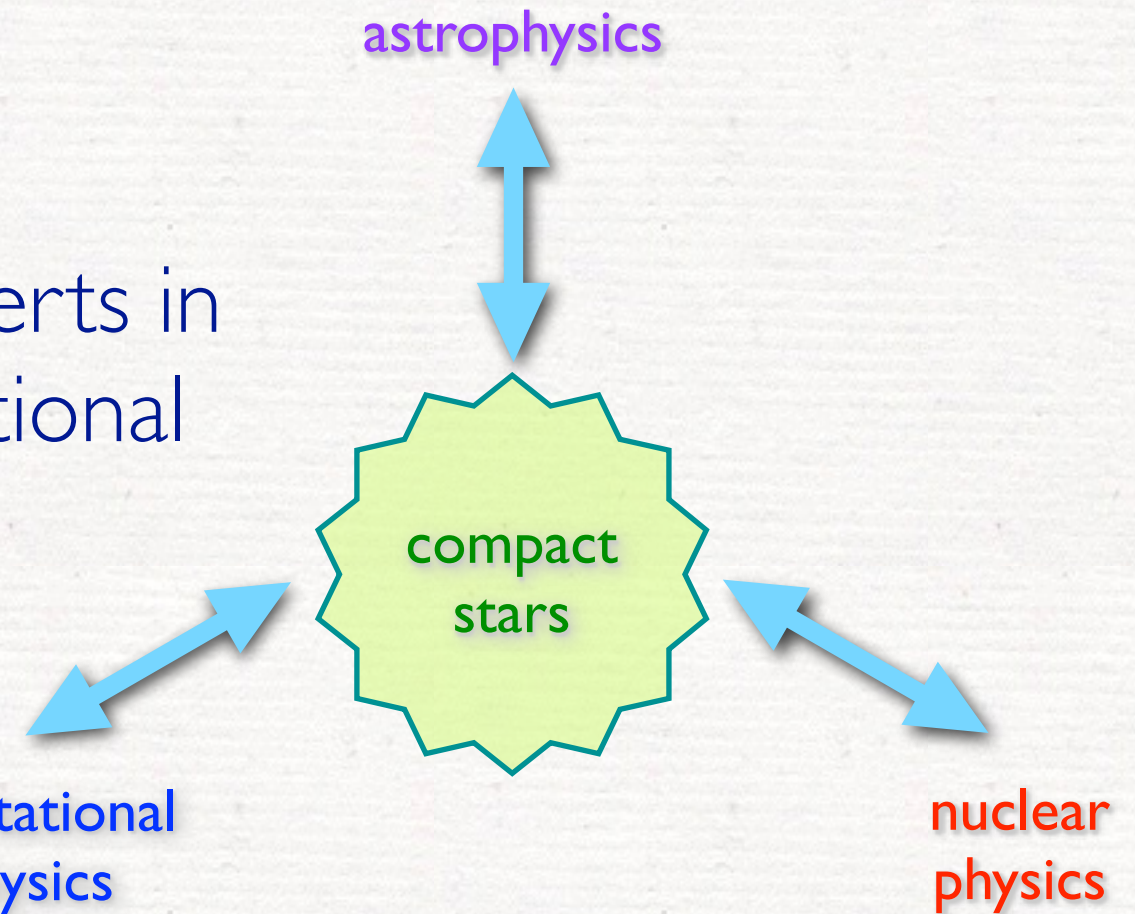
Budapest, 15.06.15



Annual NewCompStar Conference 2015

Driven by science to exploit synergies

- The Action is driven to research fundamental physics and astrophysics through the study of compact stars.
- This Action addresses a few fundamental but challenging questions concerning the physics and astrophysics of compact stars.
- Brings together leading European experts in astrophysics, nuclear physics and gravitational physics of compact stars.
- Provides important value to the large-scale European efforts in observational astrophysics and experimental nuclear physics.



Organization

The Action has **three work groups (WGs)**, one for each thematic area

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WG1



WG3



WG2

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WGI



Work Group Leaders (WGLs):
preside over the coordination of
the three WGs

WGL3



WG3

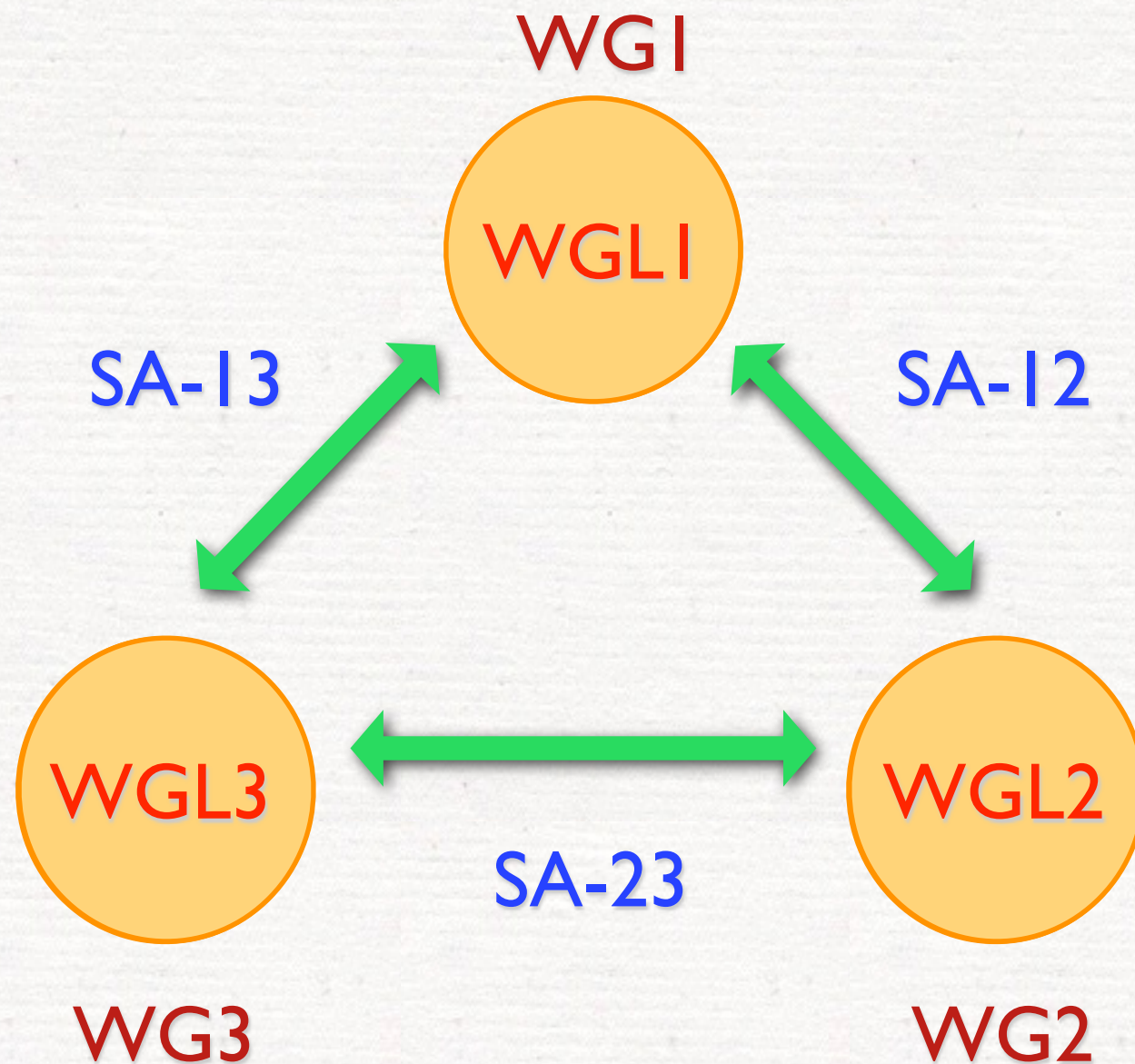
WGL2



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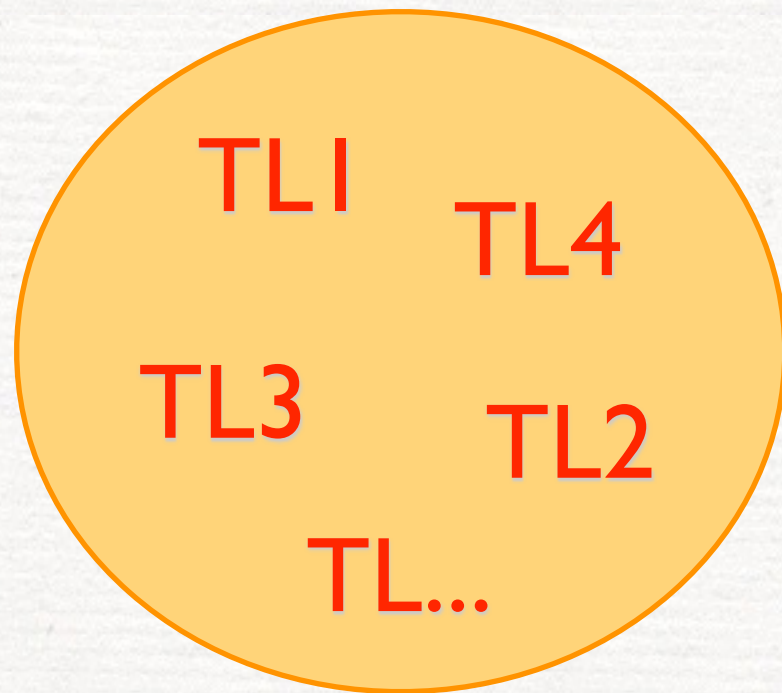
Work Group Leaders (WGLs): preside over the coordination of the three WGs

Synergy Agents (SAs): are responsible for the synergy between two or more WGs

Organization

The activity of **each WG** will be overseen by the **WGL** and the **SAs**.

WGL



Within each group, **Topic Leaders (TLs)** have been appointed to coordinate a specific area of the **WG**.

Topic leaders have been assigned but there is always room for more active people...

Scientific coordination and networking

Scientific coordination and networking

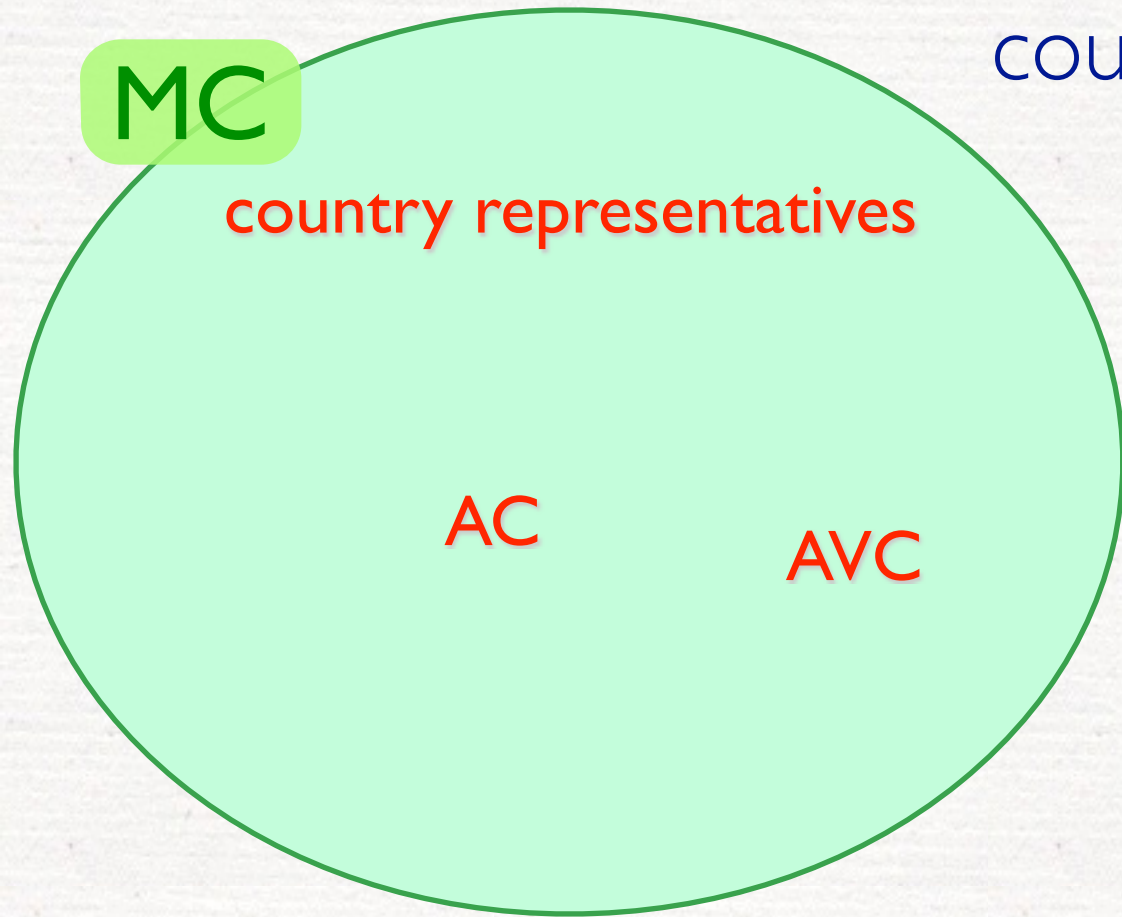
Management Committee (MC): governs the Action; composed representatives of various countries.

MC

country representatives

AC

AVC



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Gender Coordinator (GC): acts as gender-balance officer; coordinates the gender forum FemmeNet.

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Website Manager (WM): presides the building and maintenance of the website.

Steering Committee (SC): includes AC, AVC, WGLs, SAs, GC, OC and the WM; it's the executive heart of the Action

Scientific coordination and networking

- **Chair/vice Chair:** LR/Pierre Pizzochero

Scientific coordination and networking

- **Chair/vice Chair:** LR/Pierre Pizzochero
- **Working Group Leader (astrophysics):** Jose Pons
 - **Topic Leaders:** N. Bucciantini, P. Cerdá-Durán, T. di Salvo, W. Ho
- **Working Group Leader (nuclear physics):** Jerome Margueron
 - **Topic Leaders:** G. Barnafoldi, N. Chamel, L. Tolos, I. Vidana
- **Working Group Leader (astrophysics):** Ian Jones
 - **Topic Leaders:** A. Bauswein, B. Giacomazzo, L. Gualteri, T. Hinderer
- **Synergy agents:** Valeria Ferrari, Pawel Hansel, Micaela Oertel

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- **Synergy agents:** Valeria Ferrari, Pawel Hansel, Micaela Oertel
- **Website manager (WMM):** Toni Font
- **Outreach coordinator (OC):** Constanca Providencia
- **Gender Coordinator (GC):** Nanda Rea
- **STSM Coordinator:** Armen Sedrakian
- **Grant Holder Manager:** Daniela Radulescu
- **Scientific assistant:** Barbara Betz
- **Financial Rapporteurs:** M. Chernyakova, G. Barnafoldi



Participating countries

COST Participants

Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, **Malta***, Netherlands, Norway, Poland, Portugal, Romania, **Serbia**, Slovakia, **Slovenia**, Spain, Sweden, Switzerland, Turkey, United Kingdom.

COST Participants subject to MoU acceptance

Lithuania (still pending)

COST Near Neighbour Countries Institutions

***: joined 2014**

IOFFE, Sternberg Astronomical Institute, Yerevan State University

COST International Partner Countries Institutions

Monash University, University of Melbourne, **Kent State University**



Activities and budgets

COST Networking Tools		
Meetings		
Training School		
STSMs		
Dissemination		
Other Expenses		
Total Science Expenditure		
FSAC (Management)		
Total Expenditure		



Activities and budgets

COST Networking Tools	2014 in EUR	2015 in EUR
Meetings	71,000.00	72,000.00
Training School	27,000.00	28,950.00
STSMs	38,000.00	41,840.00
Dissemination	4,500.00	4,500.00
Other Expenses	500.00	536.09
Total Science Expenditure	141,000.00	147,826.09
FSAC (Management)	22,000.00	22,173.91
Total Expenditure	162,000.00	170,000.00



Activities so far

	2014	2015
Conference	Firenze Participants: 186 Reimbursed by COST: 64	Budapest Participants: 87 Reimbursed by COST: 56
Training School	Barcelona Trainers: 8 Trainees: 49	Bucharest Trainers: 10 Trainees: 54
WG Meetings	4	5
STSMs	25	19 (one more round to go)
Publications (standardized acknowledgment statement)	102 (6 letters) 80+ already published 70+ between two or more institutions notify us if you have new papers!	



Inclusive Target Countries

In context of Horizon 2020, the COST has set up a program to counterbalance research communities that have unequal access to infrastructures, funding, and resource distribution.

Inclusive Target Countries (ITCs) in our Action are:

Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Malta, Poland, Romania, Slovenia, Slovakia, Serbia, Turkey, Portugal and Luxemburg.



Training School



21-25 September 2015
Bucharest, Romania

<http://compstar15.nipne.ro>

2015
NewCompStar
School

Dense Matter in Compact Stars: Experimental and Observational Signatures

Lecturers:

Andreas Bauswein (Aristotle University, Thessaloniki, Greece)
"Nucleosynthesis in neutron star mergers"

Nicolas Chamel (Université Libre de Bruxelles, Belgium)
"Superconductivity and superfluidity in compact stars"

Maria Colonna (LNS, Catania, Italy)
"EOS and heavy ion reactions"

Filippo Galeazzi (Goethe University, Frankfurt am Main, Germany)
"Relativistic hydrodynamics"

Francesca Gulminelli (LPC Caen, France)
"The birth and death of massive stars" (Outreach session)

Pawel Haensel (Copernicus Astronomical Center, Warsaw, Poland)
"Crustal heating in accreting neutron stars"

Matthias Hempel (University of Basel, Switzerland)
"Numerical session on EOS"

Jérôme Margueron (IPN, Lyon, France)
"Links between the nuclear matter empirical parameters,
exotic nuclei, and neutron stars"

Gabriel Martínez-Pinedo (GSI, Darmstadt, Germany)
"Nucleosynthesis in CCSN and NS mergers"

Giuseppe Pagliara (Università degli Studi di Ferrara, Italy)
"Quark matter in compact stars"

Constança Providência (Coimbra University, Portugal)
"Hadronic matter and EOS"

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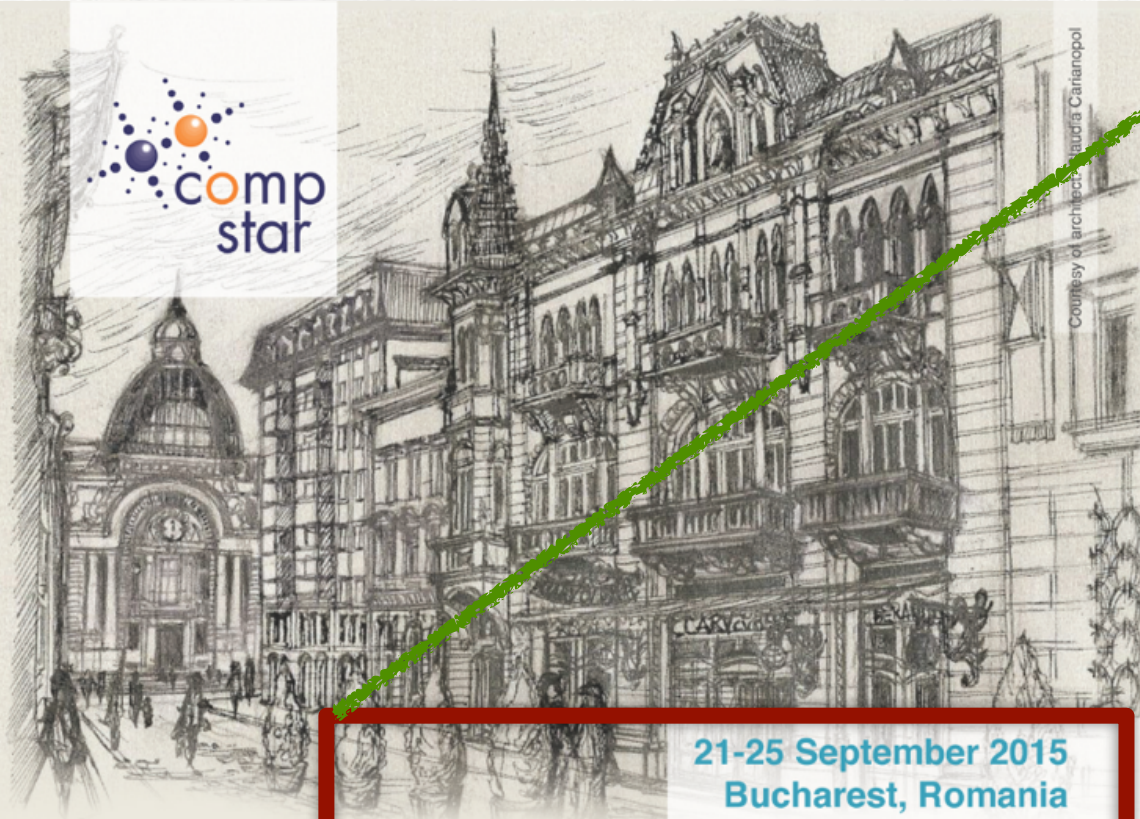
Laura Tolos (ICE, Barcelona, Spain)
"Transport phenomena and reaction rates"

Co-organised by IFIN-HH (Bucharest), University of Bucharest and NewCompstar.
Organizing Committee: Adriana Raduta (IFIN-HH), Francesca Gulminelli (LPC-Caen), Virgil Băran (University of Bucharest).





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Dense Matter in Compact Stars: Experimental and Observational Signatures



An important petition

In a restructuring of the Horizon 2020 budget, the COST Association is facing a potential **7% budget cut** for the COST framework. This is likely to lower the funds of all ongoing Actions.

If you believe COST should have stable and sufficient budgets to allow European researchers to connect and collaborate, please sign the **online petition**

“Engaging for COST”: <https://forms.cost.eu/petition>

All information on NewCompStar

<http://compstar.uni-frankfurt.de>