

Forth MC meeting hosted by

"THE STRING THEORY UNIVERSE"

22TH EUROPEAN WORKSHOP ON STRING THEORY
AND COST MP1210 FINAL CONFERENCE

February 20-24, 2017



3. Update

- Status of the Action, including new COST and non-COST countries
- Report on Grant Period 3 (2015/16)
- Budget plan Grant Period 4 (2016/17)

Status of the Action

20 → 21 COST Countries

Austria, Belgium, Bulgaria, Denmark, France,
Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Portugal,
Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, The
Netherlands, United Kingdom + CERN

Non-EU Groups

U. Antofagasta, U. Of Cape Town, U. of Witwatersrand,
Stanford U., Centro de estudios científicos (CECS), U.
Catolica de Chile, U. de Buenos Aires, U. Western
Australia, **Mathematical Sciences Institute, Australian
National Institute**

MC members

Country	MC Member
Austria	Dr Johanna KNAPP
Belgium	Dr Riccardo ARGURIO
Belgium	Prof Alexandre SEVRIN
Bulgaria	Prof Svetlana PACHEVA
Bulgaria	Prof Vladimir DOBREV
Denmark	Prof Charlotte KRISTJANSEN
Denmark	Prof Niels OBERS
France	Prof Michela PETRINI
Germany	Prof Gabriele HONECKER
Germany	Prof Johanna ERDMENGER
Greece	Prof Anastasios PETKOU
Greece	Prof Elias KIRITSIS
Hungary	Dr Annamaria SINKOVICS
Hungary	Dr Peter BANTAY
Iceland	Prof Larus THORLACIUS
Iceland	Dr Valentina GIANGRECO MAROTTA PULETTI
Ireland	Prof Tristan MCLOUGHLIN
Israel	Prof Eliezer RABINOVICI
Israel	Prof Micha BERKOOZ
Italy	Dr Anna CERESOLE
Italy	Prof Matteo BERTOLINI
Netherlands	Prof Ana ACHUCARRO
Netherlands	Prof Stefan VANDOREN
Portugal	Prof Gabriel LOPES CARDOSO
Portugal	Prof Miguel COSTA
Slovenia	Prof Martin O'LOUGHLIN
Spain	Prof Roberto EMPARAN
Spain	Prof Yolanda LOZANO
Sweden	Dr Lisa FREYHULT
Sweden	Prof Joseph MINAHAN
Switzerland	Prof Matthias GABERDIEL
Switzerland	Prof Matthias BLAU
Turkey	Dr Dieter VAN DEN BLEEKEN
Turkey	Prof Nihat Sadik DEGER
United Kingdom	Prof Jerome GAUNTLETT
United Kingdom	Prof Ruth GREGORY

Country	MC Substitute
Austria	Prof Daniel GRUMILLER
Belgium	Prof Antoine VAN PROEYEN
Bulgaria	Prof Stoytcho YAZADJIEV
Bulgaria	Dr Lilia ANGUELOVA
Denmark	Prof Troels HARMARK
France	Prof Henning SAMTLEBEN
Germany	Dr Stefan GROOT NIBBELINK
Germany	Prof Marco ZAGERMANN
Greece	Prof Ioannis BAKAS
Greece	Prof Panagiota KANTI
Hungary	Mr Zoltan KOKENYESI
Israel	Prof Oren BERGMAN
Israel	Prof Ofer AHARONY
Israel	Dr Zohar KOMARGODSKI
Netherlan ds	Prof Jan DE BOER
Spain	Dr Angel URANGA
Spain	Prof Maria A. LLEDO
Sweden	Dr Marcus BERG
Sweden	Dr Magdalena LARFORS
United Kingdom	Prof Kellogg STELLE

+ Prof. Andrei Micu, Dr. Dumitru Ghilencea

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MC Observers

Institution Name

University of Cape Town
University of Cape Town
University of the Witwatersrand
University of the Witwatersrand
University of the Witwatersrand
University of the Witwatersrand
Stanford University
Centro de estudios cientificos (CECS)
Universidad Catolica de Chile
Universidad de Buenos Aires
Universidad de Buenos Aires
Universidad de Chile
The University of Western Australia
The University of Western Australia
The University of Western Australia
The University of Western Australia
The University of Western Australia

MC Observer

Dr Jeff MURUGAN
Dr Amanda WELTMAN
Prof Robert DE MELLO KOCH
■ Dr Kevin GOLDSTEIN
■ Prof. Vishnu JEJALLA
■ Prof. Joao RODRIGUES
■ Prof Renata Kallosh
■ Prof Jorge Zanelli
Prof Max Banados
■ Prof Gaston Giribet
Dr Matias Leoni
Dr Gonzalo Palma
■ Prof Sergei M. Kuzenko
■ Dr Evgeny I. Buchbinder
Dr Joseph Novak
Dr Igor Samsonov
■ Prof Ian N. McArthur

Organisation Name

CERN
CERN
CERN
CERN
CERN
University of Antofagasta
University of Antofagasta
University of Antofagasta

MC Observer

■ Prof Luis ALVAREZ-GAUME
■ Prof Ignatios ANTONIADIS
■ Dr James DRUMMOND
■ Prof Wolfgang LERCHE
■ Dr Boris Pioline
■ Prof Alvaro Restuccia
■ Dr Maria Pilar Garcia del Moral
■ Dr Adrian Sotomayor

+ Prof. Peter Bouwknegt

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Deliverables

Year 1	Year 2	Year 3	Year 4
WGs reports Annual Report Gender activities Outreach activities Job Opp. activities Scient. publications	WGs reports Annual Report Gender activities Outreach activities Job Opp. activities Scient. publications	WGs reports Annual Report Gender activities Outreach activities Job Opp. activities Scient. publications	WGs reports Annual Report Gender activities Outreach activities Job Opp. activities Scient. publications
Website operational	Training School 1	Scientific Strategic Meeting	Training School 2
Workshop 1	Workshop 2	Workshop 3	Final Conference



Report on Grant Period 3 (June 1, 2015 - May 31, 2016)

Work and Budget Plan Summary

A. COST Networking Tools	EUR
(1) Meetings	71,010.00
(2) Training Schools	10,000.00
(3) STSMs	30,000.00
(4) Dissemination	200.00
(5) Other Expenses Related to Scientific Activities	94.35
B. Total Science Expenditure (sum of (1) to (5))	111,304.35
C. FSAC (max. of 15% of B)	16,695.65
D. Total Expenditure (B+C)	128,000.00

Grant Period 3 Activities

The Grant Period has been split in two periods due to COST changes in financial organization after inclusion in H2020

Meeting	euro
Meeting Haifa	10.207,94
Meeting Valencia	3.886,63
Meeting Leuven	26.691,59
Meeting Florence	13.969,69
Meeting Padova	1.301,58
Meeting Berlino	1.254,95
Meeting Leuven (Postdoc)	2.240,00
Meeting Nordita	4.975,59
Meeting Copenhagen	2.500,00
Total	67,027.97

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Budget Plan Grant Period 4 (May 1, 2016 - March 3, 2017)

Work and Budget Plan Summary

A. COST Networking Tools	EUR
(1) Meetings	53,000.00
(2) Training Schools	25,800.00
(3) STSMs	10,000.00
(4) Dissemination	0.00
(5) Other Expenses Related to Scientific Activities	0.00
B. Total Science Expenditure(sum of(1) to (5))	88,800.00
C. FSAC(max. of 15% of B)	13,320.00
D. Total Expenditure(B+C)	102,120.00

Grant Period 4 Activities

Meeting	euro
Meeting Parigi	2.328,84
Meeting Santiago de Compostela	4.990,47
Meeting Firenze	4.000,00
Meeting Leuven (Postdoc)	1.720,00
Meeting Gender	1.304,06
Meeting Milano	48.000,00
Total	62,343.37

STSM amount has been moved to Milano Meeting to support participation of young students and postdocs.

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Final Report

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ANNUAL WORKSHOPS

The String Theory Universe, 19th European Workshop on String Theory
and 1st COST MP1210 Meeting

Bern, September 2-6, 2013

Budget: 28 KE

The String Theory Universe, 20th European Workshop on String Theory
and 2st COST MP1210 Meeting

Mainz, September 22-26, 2014

Budget: 30 KE

The String Theory Universe, 21st European Workshop on String Theory
and 1st COST MP1210 Meeting

Leuven, September 7-11, 2015

Budget: 27 KE

The String Theory Universe, 22nd European Workshop on String Theory
and COST MP1210 Final Conference

Milano-Bicocca, February 20-24, 2017

Budget: 48 KE

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WGs Activities

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WG1: Gauge/Gravity duality (leader: Johanna Erdmenger)

First Training School

“**String Theory and Holography**”, Lisbon, July 14-18, 2014.

“**Mathematica Summer School on Theoretical Physics: Selected Topics in Holography**”, Porto, July 21-26, 2014.

Organizers: G. Lopez Cardoso, M. Costa.

Budget: 27 KE

“**Bootstrap 2015**”, Weizmann, May18-29, 2015

Organizers: Z. Komargodski, J. Penedones, D. Poland, V. Rychkov, L. Rastelli, P. Vieira, M. Berkooz, O. Aharony

Budget: 2 KE

“**Challenges for AdS/CFT in high dimensions**”, Technion (Haifa), June 28 – July 2, 2015

Organizers: O. Bergman, A. Yarom

Budget: 10 KE

“**Holography and Dualities 2016: New Advances in String and Gauge Theory**”,

Stockholm, March 30 - April 22, 2016

Organizers: K. Zarembo

Budget: 5 KE

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WG2: String Phenomenology (leader: Michela Petrini)

“Physics and Geometry of F-theory”,

Max Planck, Munich, February 23-26, 2015.

Organizers: T. Grimm, I. Garcia Etxebarria, T. Pugh.

Budget: 45 KE → 30 KE

“From String Theory to Particle Physics and Cosmology, and Back”,

GGI-Florence, October 26-30, 2015.

Organizers: Sakura Schafer-Nameki, Riccardo Argurio, Matteo Bertolini

Budget: 15 KE

“Tools for String Phenomenology with applications to Particle Physics and Cosmology”,

GGI-Florence, October 19-23, 2015.

Organizers: Sakura Schafer-Nameki, Riccardo Argurio, Matteo Bertolini

Budget: 14 KE

“Supergravity 2015”, Padova, October 29-30, 2015.

Organizers: Gianguido Dall'Agata, Stefano Giusto and Luca Martucci

Budget: 1.3 KE

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WG3: Cosmology and Quantum Gravity (leader: Roberto Emparan)

“Quantum Gravity and Cosmology”,

Weizmann Institute, Rehovot, January 6-10, 2014.

Organizers: M. Berkooz.

Budget: 2.0 KE

“Numerical Relativity and Holography”,

Santiago de Compostela, 27/6 - 1/7, 2016.

Organizers: M. Ammon, V. Cardoso, P. Figueras, M. Kaminski, E. Lopez, J. Mas, J. Sonner

Budget: 5.0 KE

Second Training School

“Cargèse Summer School: Quantum Gravity, Cosmology and Particle Physics”

Cargèse, June 13-25, 2016.

Organizers: L. Baulieu, J. de Boer, K. Benakli, A. Ceresole, Sheer El-Showk, N. Halmagyi, Y. Lozano, Z. Komargodski

Budget: 26.0 KE

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Cross-disciplinary activities

WG1/WG3: "Holographic Methods for Strongly Coupled Systems", GGI, April 13-17, 2015.
Organizers: F. Bigazzi, A. Cotrone, N. Evans, E. Kiritsis, H. Liu, C. Nunez, K. Skenderis.
Budget: 2 KE → 16 KE

WG1/WG3: "Holographic Renormalization Group and Entanglement", Paris 7, January 28-30, 2015.
Organizers: N. Halmagyi, F. Nitti, G. Policastro.
Budget: 7 KE

WG1/WG3: "Bootstrap 2015", Weizmann Institute, 18-29 May, 2015
Organizers: Ofer Aharony, Micha Berkooz
Budget: 2 KE

WG1/WG3: "Challenges for AdS/CFT in higher dimensions, a workshop", Technion in Haifa, June 28 – July 2, 2015.
Organizers: Oren Bergman, Amos Yarom and Micha Berkooz
Budget: 10 KE

WG1/WG3: "Supergravity: What's next?", GGI Florence, September 7-9, 2016
Organizers: A. Ceresole, A. Van Proeyen
Budget: 4 KE

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WG5: Gender Balance and Outreach (leader: Marian Lledò)

“First Workshop on String Theory and Gender”,

Valencia, July 6-7, 2015.

Organizers: Marian Lledo’

Budget: 4 KE

“Second Workshop on String Theory and Gender”,

Paris, June 9-10, 2016.

Organizers: Mariana Grana, Ruben Minasian, Michela Petrini

Budget: 2 KE

After COST:

“Third Workshop on String Theory and Gender”,

Southampton, March 15-17, 2017.

Organizers: Oscar Dias, Andy O'Bannon, Kostas Skenderis and Marika Taylor

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The COST Action "The String Theory Universe", presents

$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R = 8\pi T_{\mu\nu}$$

COROLLARIES

$$ds^2 = - \left(1 - \frac{2M}{r}\right) dt^2 + \left(1 - \frac{2M}{r}\right)^{-1} dr^2$$

A play directed by **FABIO SCAMONI**

with **CATERINA CORSI**
NICOLA LUDWIG
PATRIZIO LUIGI BELLOLI

Thursday, February 23 at 17:30, room U4-08

Dissemination meetings

Representation of the Action in “**Career Development workshop for women in physics**”
Trieste, September 16-19, 2013

Talk by Yolanda Lozano, participation at the round table by Anna Ceresole
Budget: 1,000 E

Representation of the Action in “**Gender Summit 2014**”, Brussels, 30/6-1/7/2014
Talk and distribution of flyers by Michela Petrini - Budget 900 E

Representation of the Action in “**Gender Summit 2015**”, Berlin, 6-7 November 2015
Talk presentation and distribution of flyers by Yolanda Lozano - Budget: 1 KE

Representation of the Action in “**Gender Summit 2016**”, Brussels, 8-9 November 2016
Talk and distribution of flyers by Marian Lledò - Budget: 1 KE

Scientific dissemination: participation of COST members and seminars on invitation at many international workshops and conferences.
All original results published in international journals with peer review and high impact factor.

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Outreach activities

Local outreach activities by many COST participants (lectures, articles, participation in radio and TV programs, books)

One public talk organised at every annual workshop devoted to high school students and general public.

Job opportunity meetings

Location: Leuven

Dates: 17-18/12/2013 16-17/12/2014 21-22/12/2015 19-20/12/2016

Average budget: 2 KE

5. STSM

STSM 2013

Anguelova Lilia
Arean Daniel
Berasaluce G. Mikel
Bianchi Marco
Bzowski Adam
Di Dato Adriana
Hayashi Hirotaka
McPherson Niall
Martinez Marina
Mekareeya Noppadol
Piazzalunga Nicolo'
Schmude
Staessens Wieland
Surowka Piotr
Urakawa
Zhang Yunlong
Zhang Hongbao

STSM 2014 - 1° year

Anastasios Taliotis
Erik Plauschinn
Adolfo Guarino
Ander Retolaza
Diego Rodriguez-Gomez
Eduardo Conde Pena
Blai Garolera
Satoshi Nawata
Sebastian de Haro
Michael Tomka

1° GP: 33 KE

STSM 2014 - 2° year

Nicolo' Piazzalunga
Ioannis Papadimitriou
P. Marcos Crichigno
Elli Pomoni
Zoltán Kökényesi
Gianluca Zoccarato
Per Sundin
Alessandra Gnecci
Dimitrios Giataganas
Mario Herrero
Marco Scalisi

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STSM 2015 - 2° year

Kiril Hristov
Georgios Kalamakis
Luis Melgar
Miguel Montero
Alessandro Pini
Michelangelo Preti
Jan Rosseel
Waldemar Schulgin
Genis Torrents
Marcel Vonk

2° GP: 36 KE

STSM 2015 - 3° year

Anthony Ashmore
Adam Bzowski
Andrei Constantin
Philipp Haehnel
Andrea Mauri
Martin O'Loughlin
Jesus Montero
Suresh Nampuri
Christiana Pantelidou
Juan Pedraza
Nicolo` Piazzalunga
Massimiliano Ronzani
Timm Wrase

STSM 2016

Daniel AREAN
Giulio BONELLI
Simone Giacomelli
Andrea Leonardo
Guerrieri
Kiril Hristov
Magdalena Larfors

3° GP: 28 KE

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10. Website

(WIS, Micha Berkooz)

<http://wws.weizmann.ac.il/stringuniverse/>

- PhD advertisement page
- Postdoc advertisement page
- Activities advertisement page

After this COST ??

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COST Inclusiveness countries

- **EU 13:**
 - Bulgaria
 - Croatia
 - Cyprus
 - Czech Republic
 - Estonia
 - Hungary
 - Latvia
 - Lithuania
 - Malta
 - Poland
 - Romania
 - Slovakia
 - Slovenia

- EU Candidates:**
 - FYR Macedonia
 - Republic of Serbia
 - Turkey

- EU Potential Candidate:**
 - Bosnia and Herzegovina

- EU Countries targeted by EC:**
 - Luxembourg
 - Portugal

