

Florence Theory Group Day, GGI, 19 Marzo 2025

A sketch of the Florence Theory Group

(Gruppo IV INFN Firenze + GGI)



Francesco Bigazzi



Istituto Nazionale di Fisica Nucleare
SEZIONE DI FIRENZE



UNIVERSITÀ
DEGLI STUDI
FIRENZE



People

- A community of about 70 scientists (INFN employees + INFN associates)
 - @ Physics and Astronomy Department, INFN Firenze and Galileo Galilei Institute
-
- INFN-FI staff: 9
 - INFN-FI postdocs: 4
-
- GGI: Director + 3 postdocs
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- UniFI staff: 23
 - UniFI postdocs: 4
 - UniFI Ph.D. students: 14
-
- CNR staff: 7
 - INAF staff: 1
 - Others (senior + external associates): 6

Research

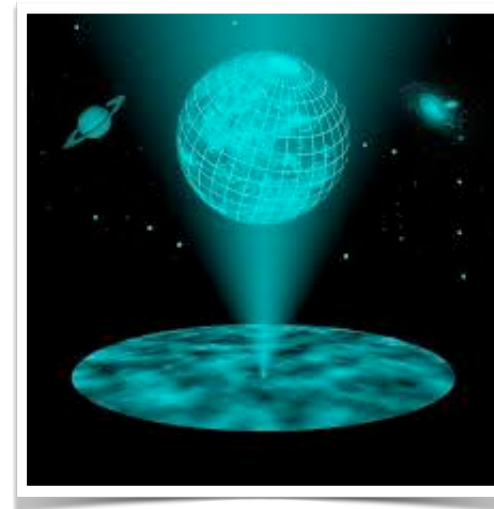
- Our research activities cover *all* the scientific lines of the INFN Theory Committee (CSN IV)
- Organized through national research networks called *Iniziativa Specifiche*

Webpages

Gruppo IV INFN Firenze: <https://web.infn.it/FlorenceTheoryGroup>

Galileo Galilei Institute: <https://www.ggi.infn.it/>

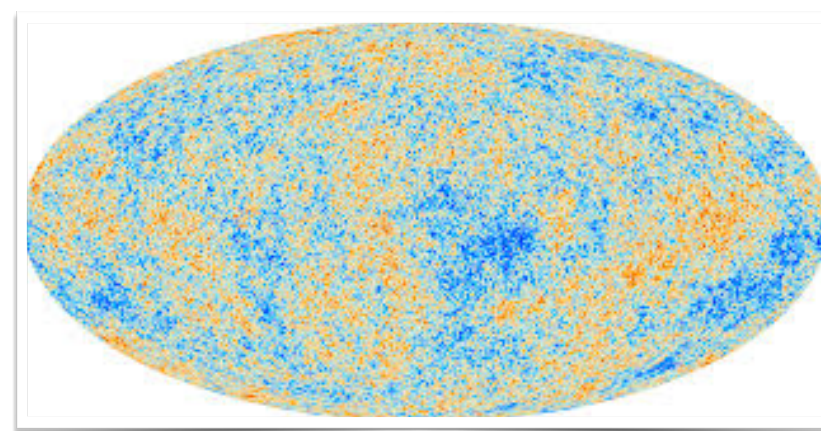
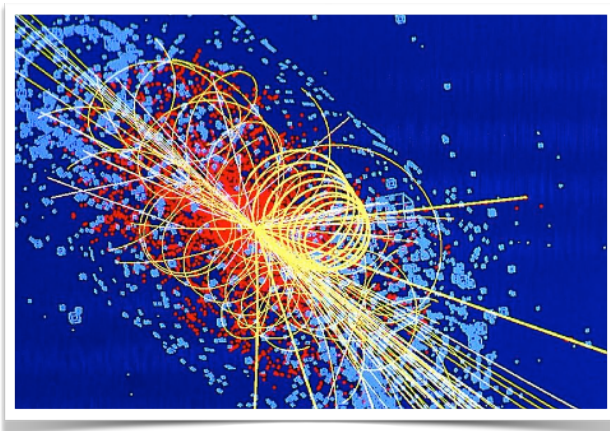
String Theory, Gravity and Holography



- **STAFF:** Alice Bernamonti, Francesco Bigazzi, Aldo Lorenzo Cotrone, **Federico Galli**, Domenico Seminara.
- **Post-Docs:** **Lorenzo Iacobacci** (GGI), José Manuel Penin Ascariz, Natalia Pinzani Fokeeva
- **Ph.D. students:** **Federico Castellani**, **Mauro Gilierti**, Andrea Olzi, Lorenzo Russo
- *Iniziativa specifica:* GAST
- **Webpage:** <https://sites.google.com/view/stringtheoryflorence/>

Red = speaking today

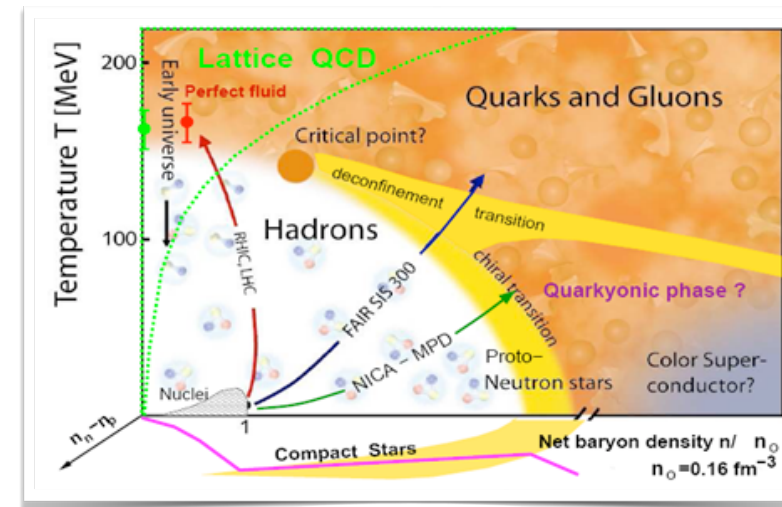
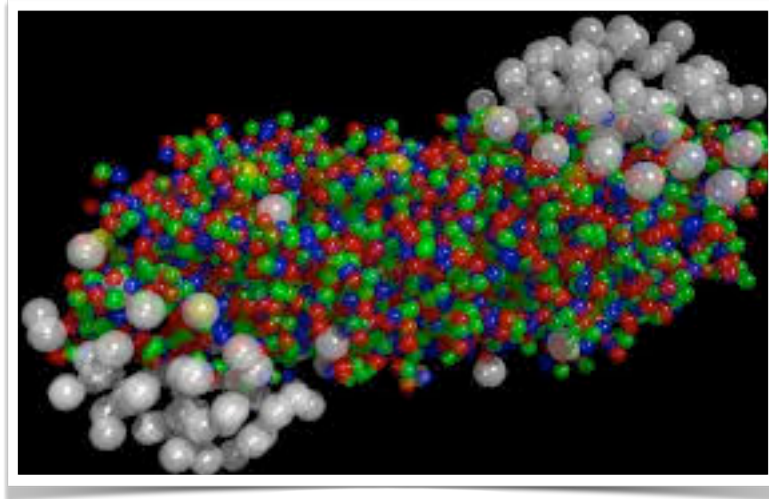
Particle Physics and Cosmology



- **STAFF:** **Roberto Bonciani**, Dimitri Colferai, Stefania De Curtis, Giuliano Panico, Fulvio Piccinini (GGI), **Michele Redi**, Diego Redigolo, Marko Simonovic, Andrea Tesi
- **Postdocs:** **Prudhvi Bhattiprolu**, **Alessandro Dondarini (GGI)**, **Stefano Palmisano (GGI)**, Michele Tammaro
- **Ph.D. students:** Matteo Borrello
- **Senior:** Roberto Casalbuoni, Daniele Dominici
- *Iniziativa specifiche:* AMPLITUDES, QFT@COLLIDERS, TPPC
- **Webpage TPPC:** <https://web.infn.it/FlorenceTheoryGroup/research/particle-physics-and-cosmology-group/>

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Relativistic and nuclear matter

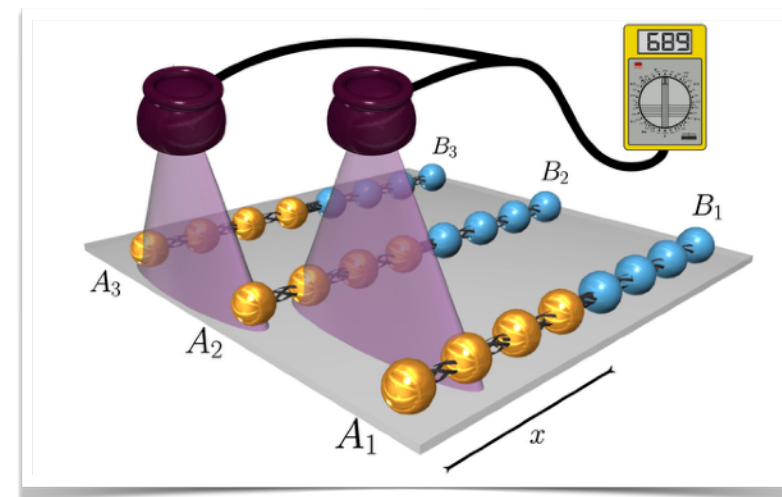
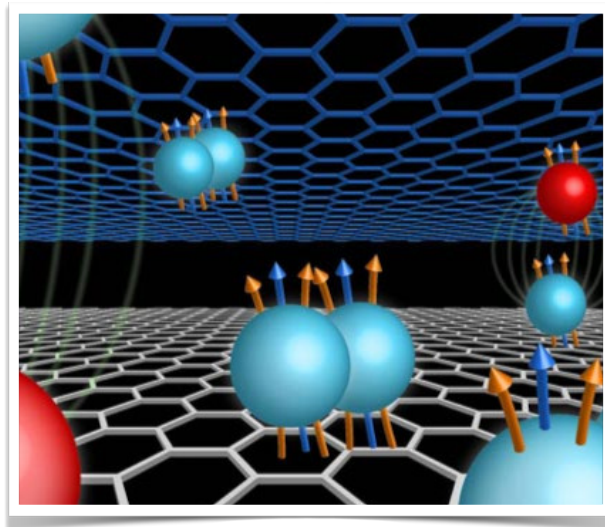


- **STAFF:** Francesco Becattini, **Eduardo Grossi**
- **Postdocs:** Natalia Pinzani Fokeeva, Xin-Li Sheng, Sushant Kumar Singh, **David Wagner**
- **Ph.D. students:** Francesco Palli, Daniele Roselli
- **Senior:** Maria Paola Lombardo
- *Iniziativa specifica:* SIM
- **Webpage:** <https://sites.google.com/unifi.it/francescobecattiniwebpage/relativistic-and-nuclear-matter>

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Statistical Field Theory

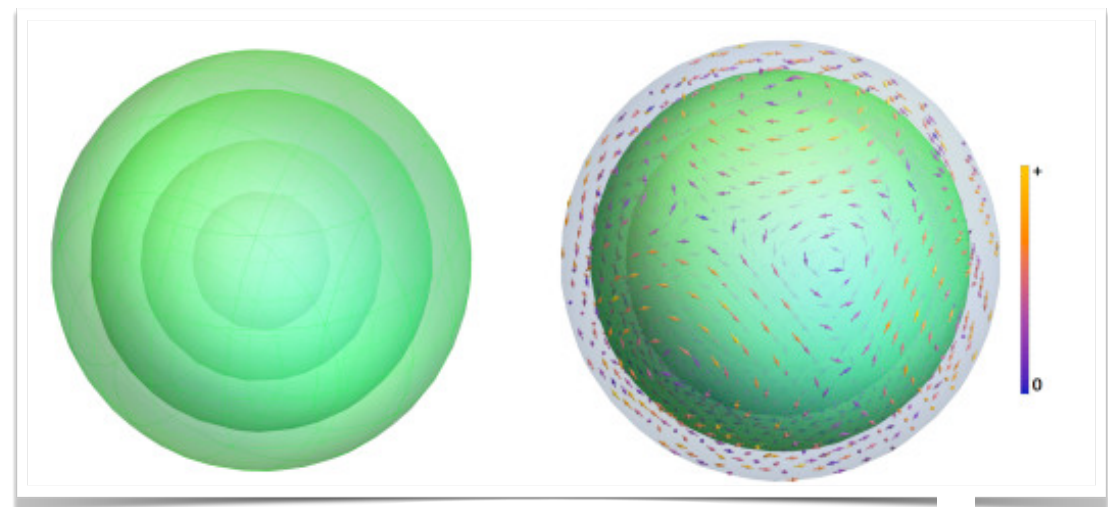
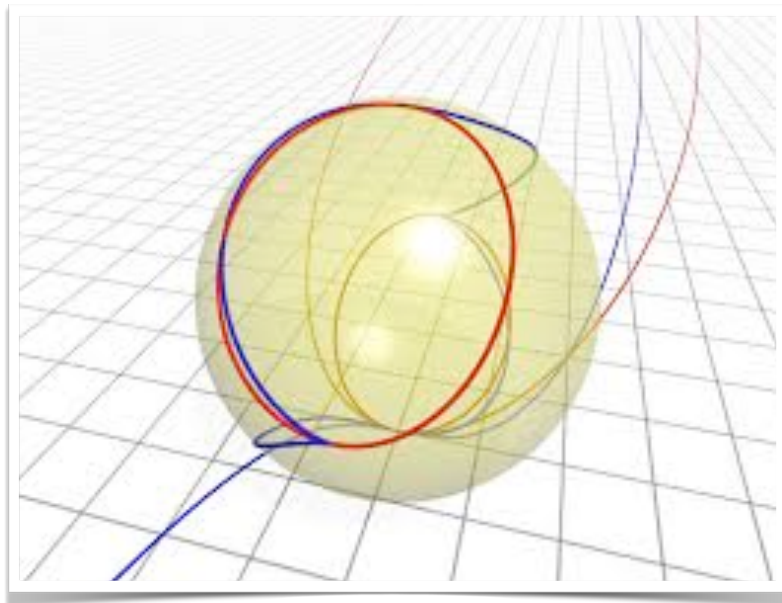
Low dimensional systems, Integrable Models, Quantum Information



- **STAFF:** Leonardo Banchi, Andrea Cappelli, **Fabio Cinti**, Filippo Colomo, Alessandro Cuccoli, Paola Verrucchi.
- **Ph.D. students:** Michelangelo Mannatzu, **Riccardo Villa**
- *Iniziativa specifica:* SFT

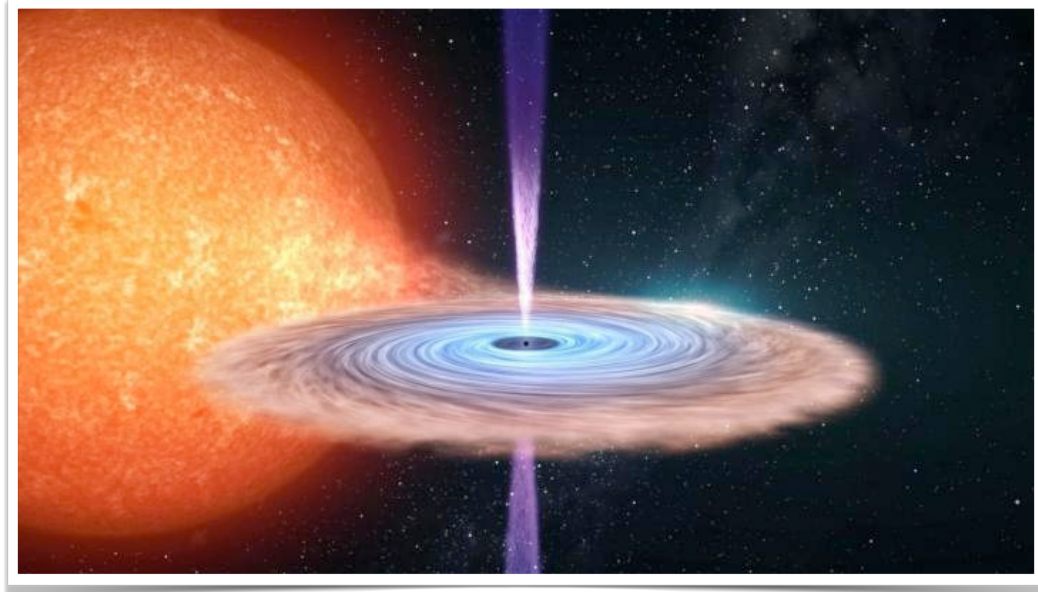
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Mathematical Methods for Quantum Field Theory



- **STAFF:** Francesco Bonechi, Giulio Pettini
- **Postdocs:** Giovanni Canepa
- **Senior:** Marco Tarlini
- *Iniziativa specifica:* GEOSYM_QFT

Magnetohydrodynamics in GR and numerical models of astrophysical sources

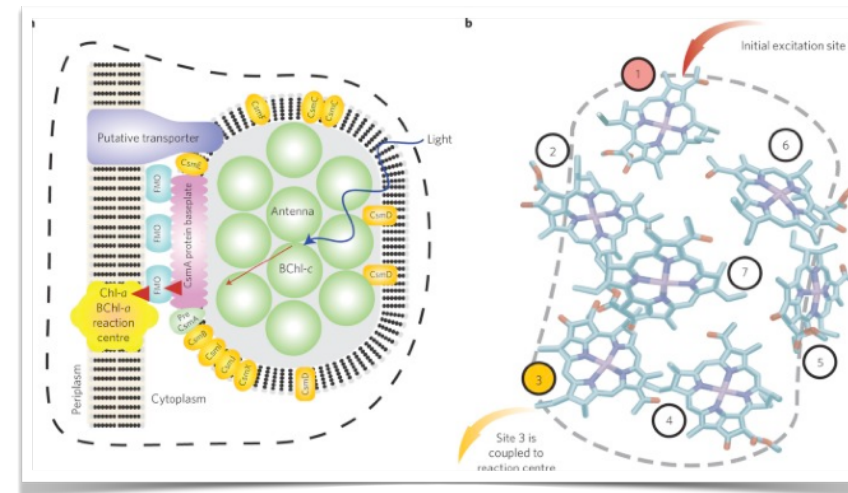


- **STAFF:** Niccolò Bucciantini, **Luca Del Zanna**
- *Iniziativa specifica:* TEONGRAV

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Physics of Complex Systems

Long range interactions, transport, biophysics, networks



- **STAFF:** Franco Bagnoli, Lorenzo Buffoni, Lapo Casetti, Giuseppe Luca Celardo, Pierfrancesco Di Cintio, Francesca Di Patti, Duccio Fanelli, Stefano Iubini, Stefano Lepri, Raffaele Marino, Simona Olmi, Francesco Piazza, Paolo Politi, Alessandro Torcini
- **Postdocs:** Lorenzo Chicchi, Fabricio Simon Lozano Negro, Feliciano Giuseppe Pacifico
- **Ph.D. students:** Diego Febbe, Michele Giusfredi, Gianluca Peri, Alessia Valzelli, Marco Zamboni
- **Senior:** Roberto Livi, Stefano Ruffo
- *Iniziativa specifiche:* DYNYSMATH, LINCOLN
- **Webpage:** <https://fisico.complexworld.net/home>

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