STRONG-2020

Annual Meeting 2024

WP2 - DISCO, Dissemination and Communication

Catalina Curceanu, INFN-LNF, Italy

In the memory of Professor Carlo Guaraldo (INFN-LNF)
Deputy Scientific Coordinator of the STRONG-2020 project,
who passed away on 19th May 2024 in Roma.

The HadronPhysics projects: Carlo's role
PI of three major EU projects (>30 Meuro!)

- **HadronPhysics 2004-2008**
- **HadronPhysics2 2009-2011**
- **HadronPhysics3 2012-2014**


COMMISSION EUROPEENNE
EUROPESE
MISSIE
DG Onderzoek
DG Recherche
Gemeenschappelijk Centrum voor
Centre commun de recherche


COMMISSION EUR
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EUROPESE COMM
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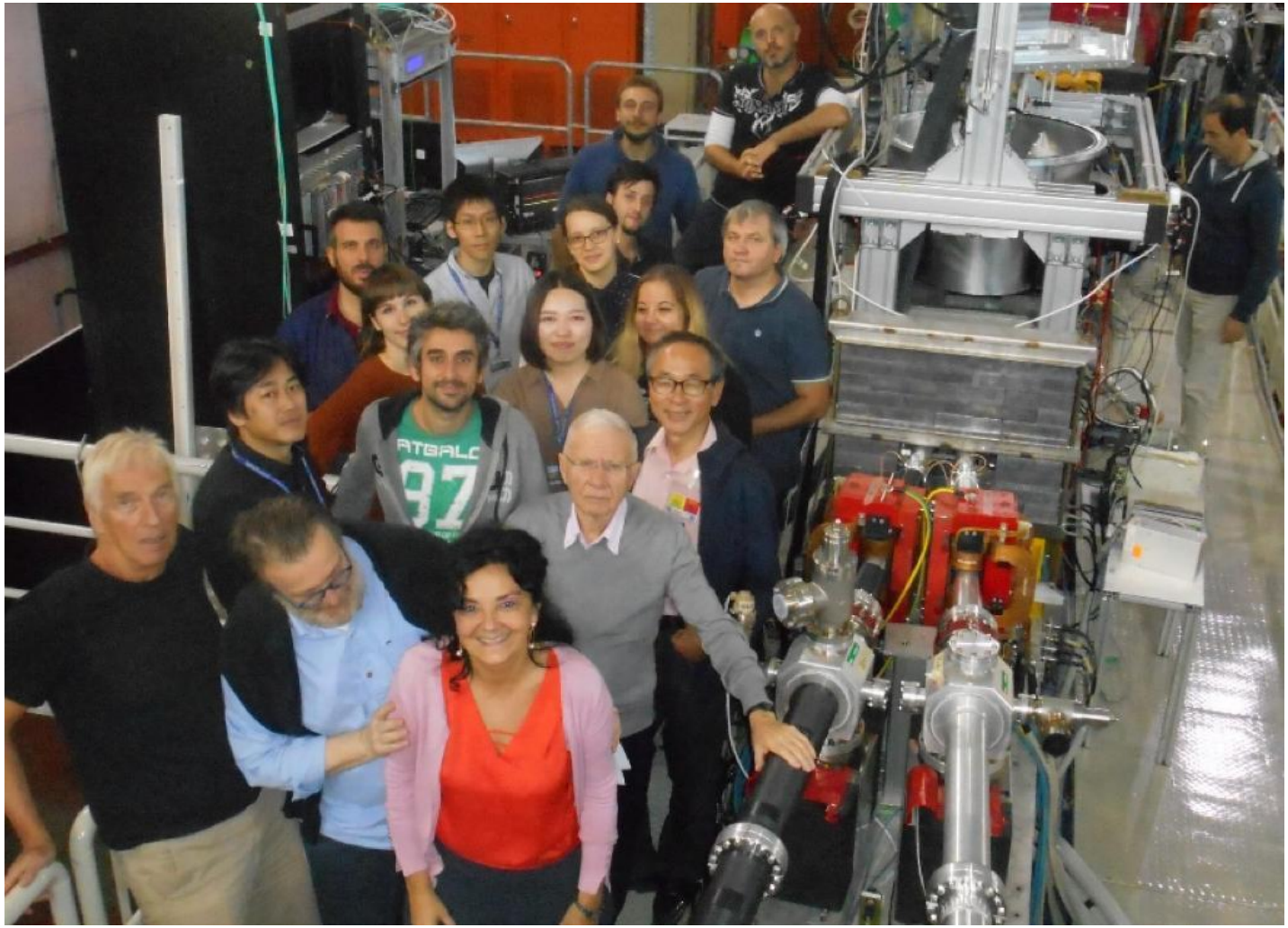
DG Recherche
Gemeenschappelijk Centrum vo
Centre commun de recherche

STRONG-2020, Nantes, 23-25 October, 2019



Grazie Carlo!

NO ONE DIES AS LONG AS HE LIVES IN THE HEARTS AND MINDS OF THOSE WHO REMAIN

WP2 objectives:

To promote and realize efficient and targeted dissemination, exploitation of results and communication activities resulting from the dedicated research and transnational activities performed within the project, in order to raise the awareness about their importance, to promptly inform the various communities on the obtained results and to enhance the future financing opportunities targeting the self-sustainability of the involved community, with special care on sex and gender dimension. **DISCO is a transversal and integrated activity, which involves all the other WPs of the project.** The objective is to promote and realize dissemination and communication of the results coming from the project, with special focus on the involved research infrastructures, toward:

- The scientific community of specialists in hadron physics
- The wider scientific community
- The general public, industry representatives and policy makers

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To promote and realize efficient and targeted dissemination, exploitation of results and communication activities resulting from the dedicated research and transnational activities performed within the project, in order to raise the awareness about their importance, to promptly inform the various communities on the obtained results and to enhance the future financing opportunities targeting the self-sustainability of the involved community, with special care on sex and gender dimension. **DISCO is a transversal and integrated activity, which involves all the other WPs of the project.** The objective is to promote and realize dissemination and communication of the results coming from the project, with special focus on the involved research infrastructures, toward:

- The scientific community of specialists in hadron physics
- The wider scientific community
- The general public, industry representatives and policy makers

The DISCO Work Package is led by INFN (Catalina Curceanu), with the support of the Dissemination Board (DB)

DB started its activity in October 2020 and up to now had 56 DB meetings – 6 since November 2023 (all but one online).
All meetings of DB have Minutes

WP2: DISCO

BD Composition and infos

(WPs be careful for your representative!)

Chair: **Dr. Catalina Curceanu – LNF-INFN**

Prof. Achim Denig, PRISMA$^+$ Cluster of Excellence and JGU Mainz, Germany

representative of TNA–Transnational access, for which we have 7 Work packages

Dr. Raphael Granier de Cassagnac, CNRS France, **representative of Quark Gluon Plasma, for which we have 4 Work packages**

WP2: DISCO

Dr. Marco Battaglieri, INFN Genova, Italy**,**
representative of QCD, SM, for which we have 3 WPs

Dr. Fulvio Tessarotto, INFN Trieste, Italy**,**
representative of Detectors, for which we have 3 WP

Dr. Maria Paola Lombardo, Firenze, Italy**,**
representative of Lattice QCD for which we have 1 WP

Dr. Herve' Moutarde, CEA, France; Dr. Valerio Bertone
representative of VA - virtual access, for which we have 2 Work packages

WP2: DISCO

Prof. Piet Mulders VU University in Amsterdam,
representative of Nucleon Structure and Strangeness, where are 6WPs

Dr. Marco Pullia, CNAO – Italy (replacing Maurizio Boscardin)
Representative of SME and industries

Andrea Pesce – Replaced by Rahul Shankar, University of Ferrara
Representative of: Development/Optimization of new polarised and unpolarised targets, for which we have 4 WPs

WP2: DISCO

DISCO Contract (post doc since Nov. 2020)

Luca De Paolis (INFN-LNF)

Ph D in Hadron Physics

Experience in nuclear and hadron physics but also in informatics

(such as web page, editing)

Experience in Dissemination

Prepare: Newsletters; STRONG-2020 web-page….

Activity:
web-page update and Implementation:

Dear colleagues,

It is with great sadness that we have to announce that our colleague Professor Carlo Guaraldo passed away on 19th May 2024 in Roma.

Carlo Guaraldo, from INFN-LNF, was a key figure and a pillar in the long history of Hadron Physics in Europe and of the STRONG-2020 project, within which he was a Deputy Scientific Coordinator, as well as member of the Executive and the Coordination Boards.

He will be deeply missed!

We express our condolences to his colleagues and family.

GET READY FOR THE PHOTO COMPETITION!

INFO

Workshop "Present and Future Perspectives in Hadron Physics"

We are pleased to announce the Workshop "Present and Future Perspectives in Hadron Physics", which will take place in person from Monday 17 to Wednesday 19 June 2024, at INFN-LNF in Frascati, Italy.

The Workshop aims to bring together a broad community of researchers active in Hadron Physics, encompassing both young and expert researchers, to engage in discussions about the latest accomplishments and future prospects across various domains of Hadron Physics and related fields. It will include invited and contributed talks, as well as poster presentations.

Further details and updates can be found on the website:


STRONG
2020

Activity:
Newsletters preparation and publication: under News and documents

Newsletter n7 (and last) in preparation – **provide please input!**

STRONG 2020

Newsletter n.1

July 2020

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824093

STRONG-2020

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LHCb goes to fixed target

Pasquale Di Nezza (Laboratori Nazionali di Frascati LNF-INFN), WP20: JRA2 FTE@LHC

LHCb has just become the first LHC experiment to be able to run simultaneously with two separate interaction regions. After a R&D mainly developed within the STRONG-2020 working group WP20:JRA2, the new SMOG2 fixed-target system [1,2] was successfully installed during the LHC Long Shutdown II. This system consists of a gas target confined within a 20-cm-long, open-ended aluminum storage cell mounted at the upstream edge of the LHCb vertex detector (VELO), 30 cm from the beam-beam interaction point and coaxial with the LHC beam. The storage cell technology allows a very limited amount of gas to be injected in a well-defined volume within the LHC beam-pipe, keeping the gas pressure and density profile under precise control and ensuring that the beam-pipe vacuum level stays at least two orders of magnitude below the upper threshold set by the LHC. The beam-gas interactions occur at roughly 4 % of the pp collision rate at LHCb delivering large statistics, even in a few hours of data taking.

Kaonic atoms at the DAΦNE collider with the SIDDHARTA-2 experiment

Catalina Curceanu, Diana Laura Sirghi (Laboratori Nazionali di Frascati LNF-INFN), WP5: TA3; WP15:NA5

Light kaonic atoms spectroscopy is a unique tool for the investigation of the low-energy strangeness quantum chromodynamics. Precise measurements of the radiative X-ray transitions towards low-n levels of these systems provide information on the kaon–nucleus interaction at threshold which, in typical scattering experiments, would require an extrapolation towards zero energy, making them method-dependent.

EXOHAD: a new initiative in theoretical hadron spectroscopy in the United States

Prof. Alessandro Pilloni (Università degli Studi di Messina, Messina, Italy), Prof. Adam Szczepaniak (Indiana University, Bloomington, US and Jefferson Lab, Newport News, US)

Research in theoretical hadron spectroscopy in the US has received a significant boost in the form of a Topical Collaboration Grant from the Department of Energy: the ExoHad Collaboration was established, between Indiana University, Arizona State University, Jefferson Lab, Ohio State University, University of Californian Berkley, The George Washington University, College of William & Mary, University of Pittsburg and University of Washington, University of Messina (Italy), University of Barcelona (Spain), and University of Graz (Austria).

An Interview to Dr. Mostafa Hoballah, Researcher of STRONG-2020 WP23 (JRA5)

Interview made by Raphaël Granier de Cassagnac (IN2P3-CNRS, France)

Mostafa, could you introduce yourself and your research field?

My undergraduate studies were purely focused on theoretical physics. During my Master II internship I was introduced to research in experimental physics: I worked on the study of the generalized polarizabilities of the proton using data from the Virtual Compton Scattering experiment at Mainz Microtron (Germany). During my Ph.D. thesis (at LPC Clermont Ferrand), I worked on the measurement of the photon polarization in B0s → φγ at LHCb, an interesting analysis and one of the key measurements of the LHCb physics program. After my thesis defense, I pursued studies in philosophy of sciences at the Université Blaise Pascal in Clermont Ferrand (France). At the

STRONG-2020 Public Lectures (see also newsletters)

https://www.youtube.com/playlist?list=PLRuUrPCVPFIqjT_o4A7iPEPJ26N_OOA6s

and also:

http://www.strong-2020.eu/events/live-events.html

1 

Strong 2020

INFN LNF - Laboratori Nazionali di Frascati • 488 visualizzazioni • Trasmesso in streaming 4 giorni fa

2 

Strong 2020

INFN LNF - Laboratori Nazionali di Frascati • 556 visualizzazioni • Trasmesso in streaming 1 mese fa

3 

Strong 2020

INFN LNF - Laboratori Nazionali di Frascati • 754 visualizzazioni • Trasmesso in streaming 4 mesi fa

4 

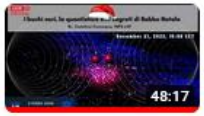
Strong 2020 - Machine Learning the history of the Universe

INFN LNF - Laboratori Nazionali di Frascati • 996 visualizzazioni • Trasmesso in streaming 6 mesi fa

5 

STRONG 2020 - The Heart of Matter: the secret inner life of protons - Prof. J. Rojo

INFN LNF - Laboratori Nazionali di Frascati • 576 visualizzazioni • Trasmesso in streaming 8 mesi fa

6 

Strong 2020 - I buchi neri, la quantistica e....i segreti di Babbo Natale - Dr. Catalina Curceanu

INFN LNF - Laboratori Nazionali di Frascati • 3608 visualizzazioni • Trasmesso in streaming 10 mesi fa

7 

Strong 2020

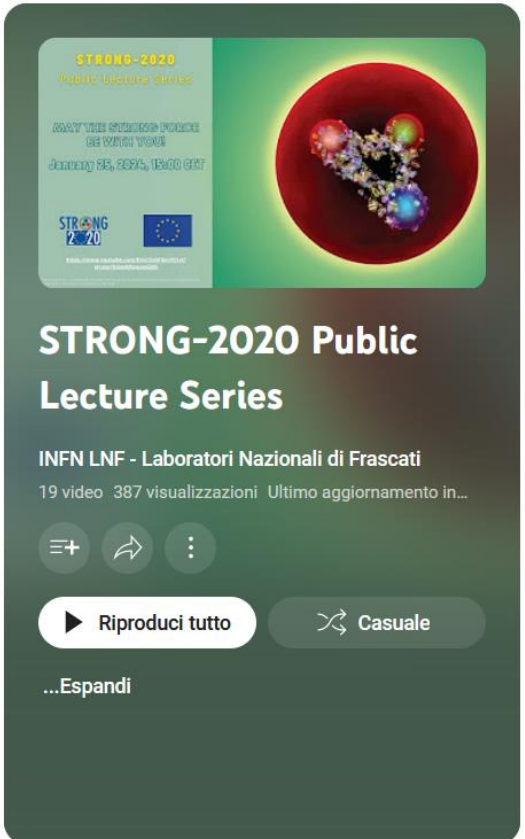
INFN LNF - Laboratori Nazionali di Frascati • 917 visualizzazioni • Trasmesso in streaming 1 anno fa

STRONG-2020 Public Lectures (see also newsletters)

https://www.youtube.com/playlist?list=PLRuUrPCVPFIqjT_o4A7iPEPJ26N_OOA6s

and also:

http://www.strong-2020.eu/events/live-events.html



1 video non disponibile è nascosto

1 

May the strong force be with you
INFN LNF - Laboratori Nazionali di Frascati •

2 

Computing the heart of matter – prof. Sonia Bacca
INFN LNF - Laboratori Nazionali di Frascati •

3 

Unraveling the structure of the nucleon with the EIC - C. Van Hulse
INFN LNF - Laboratori Nazionali di Frascati •

4 

Science, policy & truth - G. van der Steenhoven
INFN LNF - Laboratori Nazionali di Frascati •

5 

Navigating Uncharted territories in strangeness with Siddharta-2 at Dafne - F. Napolitano
INFN LNF - Laboratori Nazionali di Frascati •

STRONG-2020

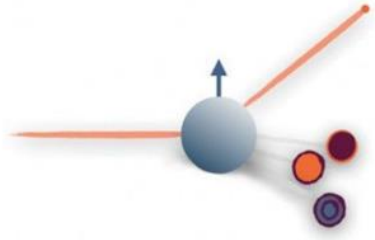
Public Lecture Series

UNRAVELING THE STRUCTURE OF THE NUCLEON WITH THE EIC

Charlotte Van Hulse
University of Alcalá, Spain

November 13, 2023, 15:00 CET

https://www.youtube.com/watch?v=vJrRpDhH6qE



Clean and most complete access to the multi-dimensional structure of the nucleon is possible through the study of longitudinally and transversely polarised lepton-hadron interactions. Measurements performed up to this day in (polarised) lepton-hadron and in hadron-hadron collisions provide information with limited precision on the distribution of quarks and, to a much lesser extent, gluons in the nucleon. In order to vastly enhance the accuracy and extend the kinematic reach of the determination of the spin-dependent quark and gluon distributions, the building of an electron-ion collider (EIC), with start of data taking beginning of the 2030's, is foreseen. The specific role played by the EIC in unraveling the multi-dimensional nucleon and nuclear structure will be presented, by introducing the various aspects of the (spin-dependent) nucleon structure and illustrating the related improvements that the EIC can bring.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824093

STRONG-2020

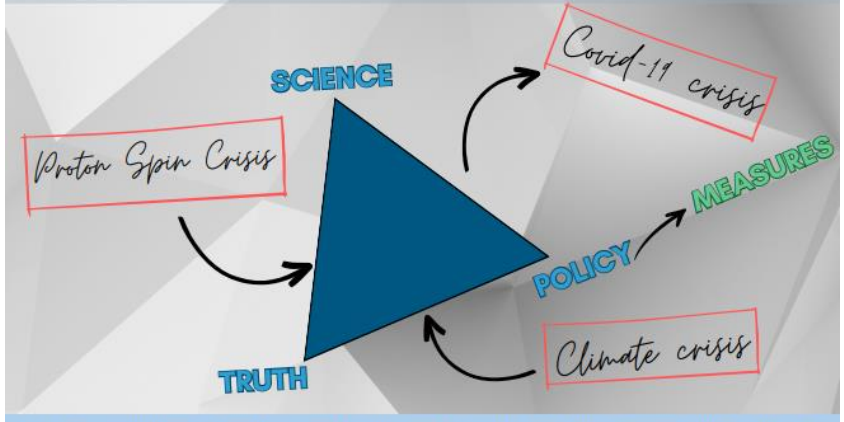
Public Lecture Series

SCIENCE, POLICY & TRUTH

Gerard van der Steenhoven
Ministry of the Interior & University of Twente,
The Netherlands.

October 16, 2023, 15:00 CET

https://www.youtube.com/watch?v=ikBtifkNV1Y



As soon as scientific results are being used by policy makers, challenging situations emerge. What is the truth? Are scientists able to provide the truth? And if they provide policy makers with an approximation of the truth - as nothing else is available - how will policy makers deal with the inevitable margins of uncertainty? These and other questions are addressed in the present STRONG-2020 public lecture. In order to make the connection with the research field of strong-interaction physics, the proton spin crisis is used as a starting example to discuss the difference between a scientific result and the ultimate truth. The lessons learned from this example are input to a further discussion on the relation between science and policy making. Two timely examples are presented to illustrate the difficulties that emerge when politicians have to use scientific results to draft their policy

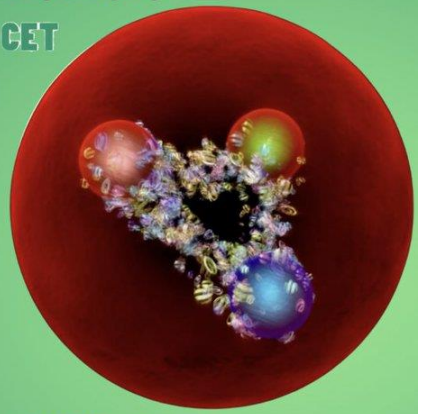
STRONG 2020

STRONG-2020
Public Lecture Series

MAY THE STRONG FORCE BE WITH YOU!

Tales from the STRONG-2020 European project

January 25, 2024, 15:00 CET



Dr. Marco Battaglieri, INFN Genova, Italy
Dr. Catalina Curceanu, INFN-LNF, Frascati, Italy
Dr. Saskia Plura, PRISMA+ Cluster of Excellence and JGU Mainz, Germany
Dr. Luca De Paolis, INFN-LNF, Frascati, Italy
Prof. Piet Mulders, Nikhef/VU, Amsterdam, The Netherlands
Dr. Rahul Shankar, University of Ferrara, Italy
Dr. Marianna Sorba, SISSA, Trieste, Italy

https://www.youtube.com/live/Oc6F4ysHS1w?si=ate1hXmWhnuxqGMS

Approaching its end, we want to share with you the excitement and some of the achievements of the STRONG-2020 EU Horizon 2020 project obtained along the years, briefly discussing our future plans. Our project is studying the strong interaction at the frontier of knowledge, and at the same time pursuing applications of the related technologies for society. The project involved a collaboration among theorists and experimentalists, students, staff and technicians aiming to gain a deeper understanding of the fundaments of matter, its building blocks and the strong forces among them. May the strong force be with you!

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824093

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STRONG 2020

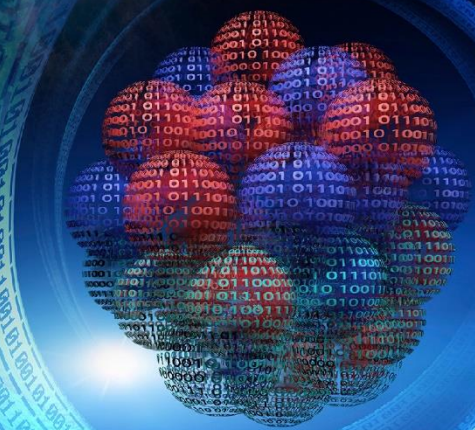
STRONG-2020
Public Lecture Series

COMPUTING THE HEART OF MATTER

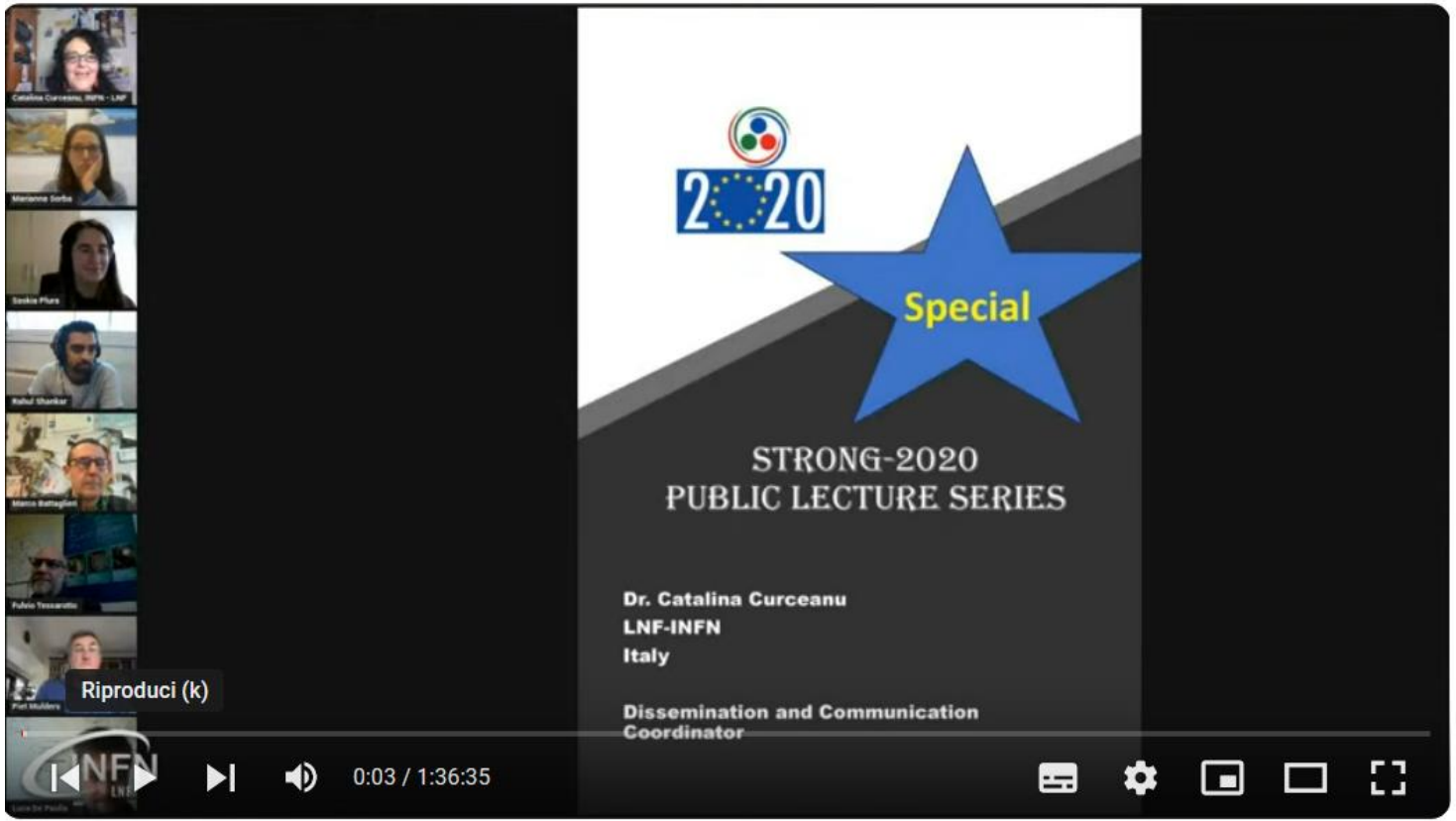
Prof. Sonia Bacca
Johannes Gutenberg University Mainz, Germany

April 29, 2024, 15:00 CET

https://www.youtube.com/live/zloU4UXZxiM?si=q2kQT3O0zCL_g6I_



Atomic nuclei constitute the heart of matter. They drive the synthesis of chemical elements, serve as star fuel and as laboratories to test fundamental interactions and the Standard Model.
Today, thanks to advances in many-body theory and high performance computing, we can calculate nuclear structure and reactions in a unified way for increasingly large systems and estimate theoretical uncertainties.
I will present recent highlights that portrait the role of ab-initio calculations to tackle contemporary issues such as neutron skins in nuclei, giant dipole resonances, and lepton-nucleus cross sections.

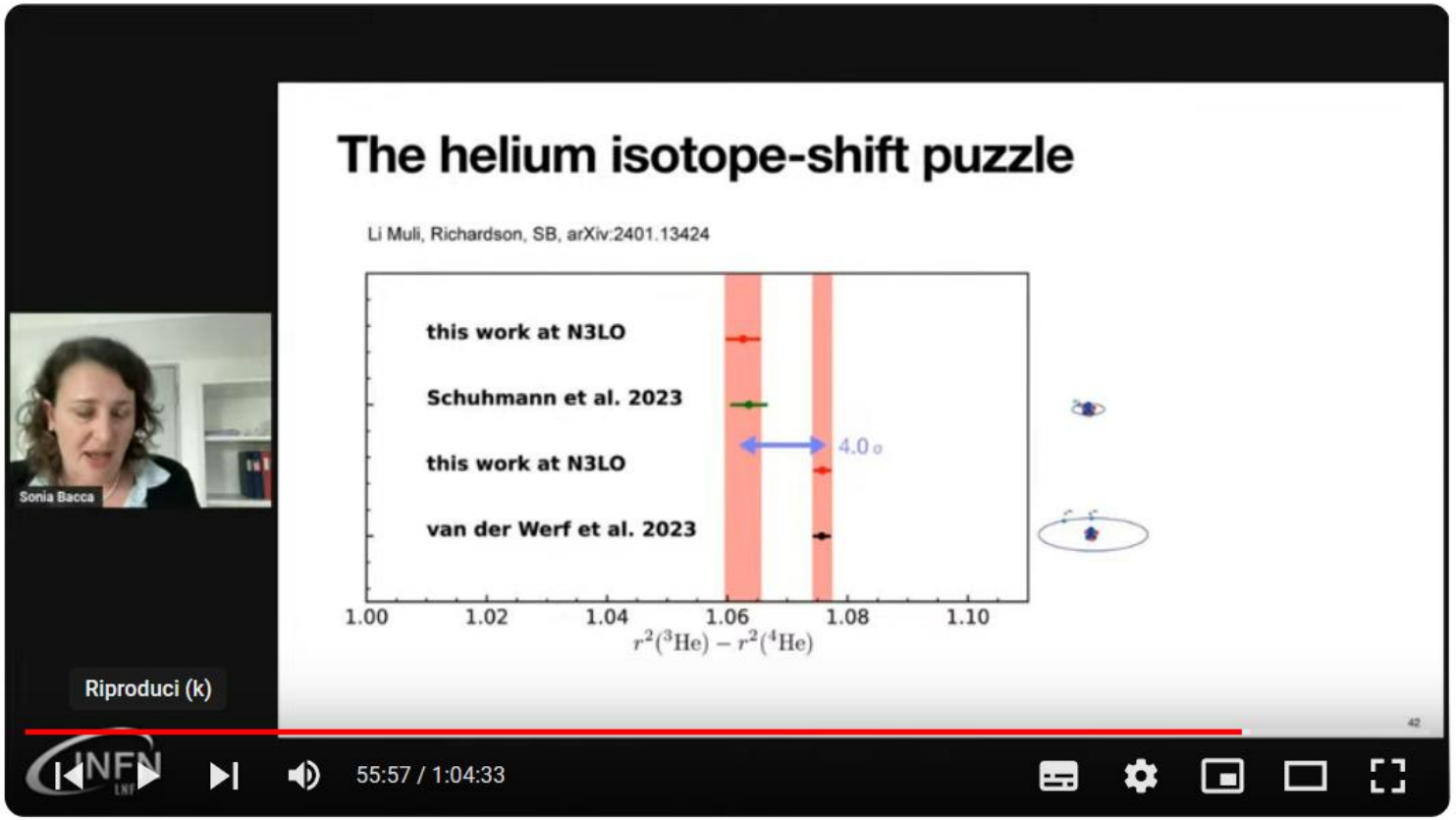


May the strong force be with you

INFN LNF - Laboratori Nazio...
30.500 iscritti

Iscritto | 33 | Condividi | Clip

983 visualizzazioni Trasmesso in streaming 4 mesi fa STRONG-2020 Public Lecture Series



Computing the heart of matter – prof. Sonia Bacca

INFN LNF - Laboratori Nazio...
30.500 iscritti

Iscritto

36

Condividi

632 visualizzazioni Trasmesso in streaming 1 mese fa STRONG-2020 Public Lecture Series

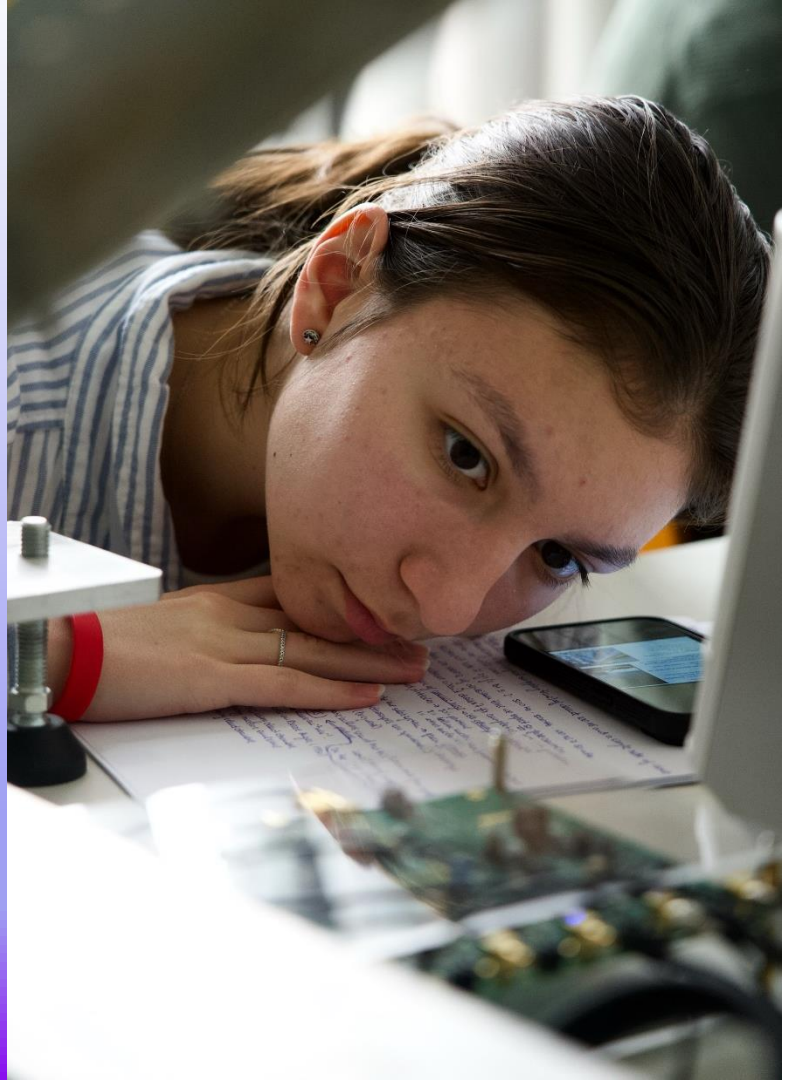
INSPYRE 2024: From quantum foundations to artificial intelligence

Frascati, April 8 – 12, 2024

Modern physics serves as a potent tool for comprehending the intricacies of our world – from the microscopic aspects of the Universe to the myriad technological applications, the ongoing revolution in quantum computing, and the advancements in artificial intelligence. Are you prepared to grasp the key that unlocks the mysteries of knowledge?

Participants and schools: 39 male and female students and 1 teacher from 7 countries (Italy, France, Romania, Germany, Spain, Serbia, Slovenia) and 28 schools (54% F)

+ > 10 presentations in science festivals and schools



What are you going to take with you?

Good memories, new knowledge and new friends

the people I met, the things I learned and the curiosity that has grown all along the week

The idea that in science we never really reach an end

The hope in physics research

The inspiration of science

My understanding of who physists are

a strong motivation to become a physicist

A lot of material to study, a lot of encouragement to go futher in the topics I enjoyed the most and a lot of ambitions

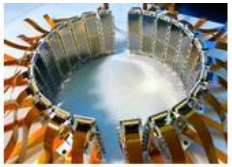
I will definitely be looking into later on in my career without a doubt

That I should not ever give up and always pursue my goals and dreams even I am not the best one

Photo competition

Title: Programmable readout boards in the modular J-PET System

Author: Grzegorz Korcyl



Title: Silicon Drift Detectors of the SIDDAHRTA-2 experiment for X-ray spectroscopy of kaonic atoms

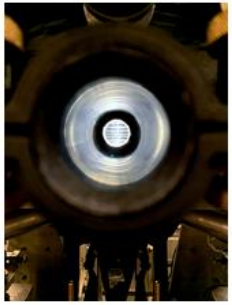
Author: Francesco Sgaramella

Title: Internal view of the SIDDHARTA-2 experimental setup, showcasing the intricate arrangement of detectors and cabling.

Author: Francesco Sgaramella

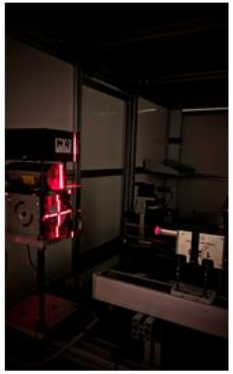
Title: Photo of the SIDDHARTA-2 experimental setup at the DAFNE collider, showing the apparatus installed above the electron-positron interaction point.

Author: Francesco Sgaramella



Title: Light passing through the kaon trigger scintillator of the SIDDHARTA-2 experiment

Author: Francesco Sgaramella



Title: Illuminating the Invisible - MITIQO

Title: The SIDDHARTA-2 experiment installed on the Interaction Point of the DAFNE collider

Author: Luca De Paolis

Title: Branch of the DAFNE collider.

Author: Luca De Paolis

Present and future perspectives in Hadron Physics

17–19 Jun 2024
Laboratori Nazionali di Frascati INFN
Europe/Rome timezone

Enter your search term

This workshop will be dedicated to the memory of Professor Carlo Guaraldo, from INFN-LNF, Deputy Scientific Coordinator of the STRONG-2020 project, who passed away on 19th May 2024 in Roma.

The Workshop will be held in person from 17 to 19 June 2024, in Frascati (Italy) in the context of the project STRONG-2020 (http://www.strong-2020.eu/).

The objective is to gather a broad Hadron Physics Community, including both young and experienced researchers.

The first day will be dedicated to selected contributions. STRONG-2020 offers an opportunity to cover local and travel expenses for young researchers.

During the second and third days, invited speakers will present their work and perspectives in various areas of Hadron Physics and related fields.

The Workshop will be followed by the STRONG-2020 Annual Meeting organized in Frascati on 20-21 June 2024 and open to a large audience. The Agenda will be soon available and the Registration is possible at the dedicated site here.


18
34
MORINI
2023

Public event:
19th June at 18:30

DAI QUARK ALLE STELLE

IL FASCINO DELLA FISICA ADRONICA

SCUDERIE ALDOBRANDINI FRASCATI
COMUNE DI FRASCATI
19 GIUGNO 2024 ORE 18:30

Incontro con la cittadinanza in occasione dell'evento scientifico "*Present and Future Perspectives in Hadron Physics*" presso INFN-LNF nell'ambito del Progetto Europeo STRONG-2020 (grant agreement No 824093).
Scopriamo insieme il mondo dei quark, degli adroni e delle stelle, e gli strumenti avanzati, come gli acceleratori e i rivelatori, che ci permettono di studiarli. Questa è un'opportunità unica per incontrare e dialogare direttamente con scienziati provenienti da tutto il mondo!

Informazioni sull'evento scientifico:
https://agenda.infn.it/event/38467/overview

Persona di riferimento:
Drssa. Catalina Curceanu, INFN-LNF

STRONG 2020

INFN
Istituto Nazionale di Fisica Nucleare
Laboratori Nazionali di Frascati


DAI QUARK ALLE STELLE
IL FASCINO DELLA FISICA ADRONICA
La batteria è quasi scarica.
Collegare il computer ad una presa di corrente.
Chiudi
Informazioni sull'evento scientifico:
https://agenda.infn.it/event/38467/overview
Persona di riferimento:
Drssa. Catalina Curceanu, INFN-LNF
STRONG 2020
INFN
OPEN labs

What to do next (till end STRONG-2020)

- Strong actions towards realization of our Tasks – provide promptly infos!
- D2.4- Proceedings of the Workshop -> mini-proc. Contributions
- D2.5-Article in Nuclear Physics News International (NUPECC) and in CERN Courier
- (work towards next project!!!)