

Electroweak, Strong and New Interactions: a symposium to celebrate Guido Martinelli's 70th birthday



SAPIENZA
UNIVERSITÀ DI ROMA
Dipartimento di Fisica

Report of Contributions

Contribution ID: 1

Type: **not specified**

Saluti

Monday, 26 September 2022 09:00 (30 minutes)

Session Classification: Guido's early days

Contribution ID: 2

Type: **not specified**

Guido and high energy QCD

Monday, 26 September 2022 09:30 (30 minutes)

Presenter: PARISI, Giorgio (ROMA1)

Session Classification: Guido's early days

Contribution ID: 3

Type: **not specified**

Weak interactions in lattice QCD with Guido

Monday, 26 September 2022 10:00 (30 minutes)

Presenter: MAIANI, Luciano (ROMA1)

Session Classification: Guido's early days

Contribution ID: 4

Type: **not specified**

50 years of lepton pair production

Monday, 26 September 2022 11:00 (30 minutes)

Presenter: ELLIS, R. Keith (IPPP, Durham)

Session Classification: QCD and Collider Physics (I)

Contribution ID: 5

Type: **not specified**

Sudakov resummation: an overview

Monday, 26 September 2022 11:30 (30 minutes)

Presenter: RIDOLFI, Giovanni (Istituto Nazionale di Fisica Nucleare)

Session Classification: QCD and Collider Physics (I)

Contribution ID: 6

Type: **not specified**

From flavor to top, Higgs, and beyond

Monday, 26 September 2022 12:00 (30 minutes)

Presenter: REINA, Laura (Florida State University)

Session Classification: QCD and Collider Physics (I)

Contribution ID: 7

Type: **not specified**

Another look at hierarchies

Monday, 26 September 2022 15:30 (30 minutes)

Presenter: ZWIRNER, Fabio (PD)

Session Classification: Physics Beyond the Standard Model

Contribution ID: 10

Type: **not specified**

The old and the new muon $g-2$ puzzle

Monday, 26 September 2022 14:30 (30 minutes)

The recent muon $g-2$ measurement at Fermilab confirms the previous BNL result, hence emphasizing the longstanding discrepancy between the experimental value and the Standard Model (SM) prediction based on the use of $e+e- \rightarrow \text{hadrons}$ data to evaluate the leading hadronic vacuum polarization (HVP). This is what I call the “old” muon $g-2$ puzzle. On the other hand, a recent lattice result by the BMW collaboration shows a tension with the above mentioned SM prediction (this constitutes the “new” $g-2$ puzzle).

In this talk I plan to summarize the overall situation concerning the two muon $g-2$ puzzles and, in particular, I discuss the possibility that new physics may contribute to the $e+e- \rightarrow \text{hadrons}$ cross-section to solve or at least alleviate the new $g-2$ puzzle.

Presenter: MASIERO, Antonio (Istituto Nazionale di Fisica Nucleare)

Session Classification: Physics Beyond the Standard Model

Contribution ID: **11**

Type: **not specified**

Axion Physics

Monday, 26 September 2022 15:00 (30 minutes)

Presenter: VILLADORO, Giovanni

Session Classification: Physics Beyond the Standard Model

Contribution ID: 12

Type: **not specified**

36 Years of Lattice QCD with Guido - From 15 quenched configurations to Precision Flavour Physics

Monday, 26 September 2022 16:00 (30 minutes)

Presenter: SACHRAJDA, Christopher (University of Southampton)

Session Classification: Precision Flavour Physics (I)

Contribution ID: 14

Type: **not specified**

From Lattice QCD to Phenomenology: Nonperturbative Renormalization

Monday, 26 September 2022 17:00 (30 minutes)

Presenters: BECIREVIC, Damir (LPT, Université Paris Sud and CNRS); BECIREVIC, Damir

Session Classification: Precision Flavour Physics (II)

Contribution ID: 15

Type: **not specified**

Guido: a flavourful life

Monday, 26 September 2022 17:30 (30 minutes)

Presenter: STOCCHI, Achille (LAL - Université Paris Sud and IN2p3/CNRS)

Session Classification: Precision Flavour Physics (II)

Contribution ID: 16

Type: **not specified**

Precision Flavour Physics

Monday, 26 September 2022 18:00 (30 minutes)

Presenters: BURAS, Andrzej (TUM); BURAS, Andrzej (TUM-IAS)

Session Classification: Precision Flavour Physics (II)

Contribution ID: 17

Type: **not specified**

Guido and The Matrix

Monday, 26 September 2022 12:30 (30 minutes)

Presenter: GONZALEZ-ARROYO, Antonio

Session Classification: QCD and Collider Physics (I)

Contribution ID: **18**

Type: **not specified**

Theta dependence in QCD

Monday, 26 September 2022 14:00 (30 minutes)

Presenter: D'ELIA, Massimo (Istituto Nazionale di Fisica Nucleare)

Session Classification: QCD and Collider Physics (II)