TOP2017

10th International Workshop on Top Quark Physics
Braga, 17-22 September, 2017


A.Onofre

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# The First Edition of the Workshop

# ...and some history

# TOP2017 10th International Workshop on Top Quark Physics

## ...Coimbra, Portugal in 2006 (January)

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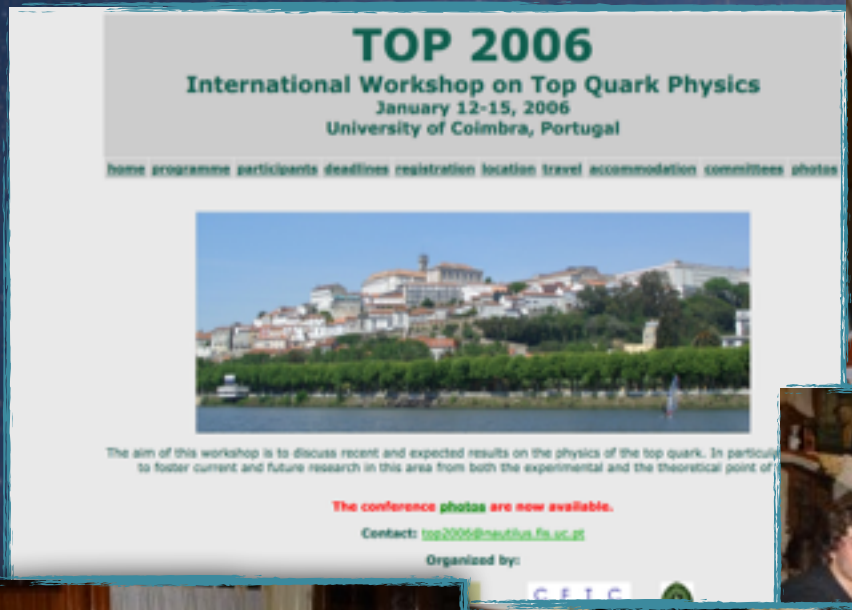

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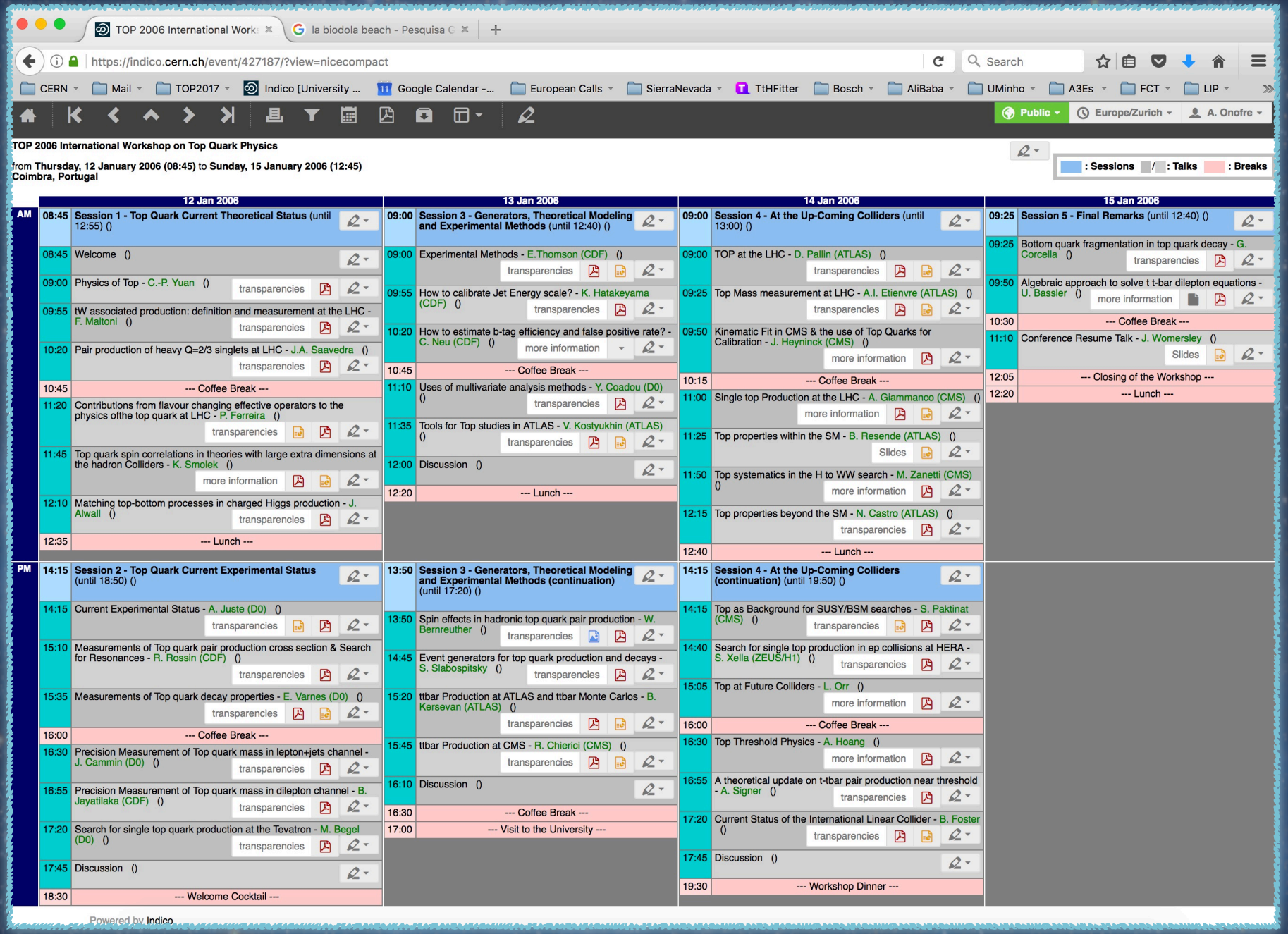

TOP 2006 International Work | la biodola beach - Pesquisa

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**TOP 2006 International Workshop on Top Quark Physics**

from **Thursday, 12 January 2006 (08:45)** to **Sunday, 15 January 2006 (12:45)**
**Coimbra, Portugal**

: Sessions / : Talks : Breaks

| | 12 Jan 2006 | 13 Jan 2006 | 14 Jan 2006 | 15 Jan 2006 |
|---|---|---|---|---|
| AM | 08:45 **Session 1 - Top Quark Current Theoretical Status** (until 12:55) () | 09:00 **Session 3 - Generators, Theoretical Modeling and Experimental Methods** (until 12:40) () | 09:00 **Session 4 - At the Up-Coming Colliders** (until 13:00) () | 09:25 **Session 5 - Final Remarks** (until 12:40) () |
| | 08:45 Welcome () | 09:00 Experimental Methods - E.Thomson (CDF) () transparencies | 09:00 TOP at the LHC - D. Pallin (ATLAS) () transparencies | 09:25 Bottom quark fragmentation in top quark decay - G. Corcella () transparencies |
| | 09:00 Physics of Top - C.-P. Yuan () transparencies | 09:55 How to calibrate Jet Energy scale? - K. Hatakeyama (CDF) () transparencies | 09:25 Top Mass measurement at LHC - A.I. Etienvre (ATLAS) () transparencies | 09:50 Algebraic approach to solve t t-bar dilepton equations - U. Bassler () more information |
| | 09:55 tW associated production: definition and measurement at the LHC - F. Maltoni () transparencies | 10:20 How to estimate b-tag efficiency and false positive rate? - C. Neu (CDF) () more information | 09:50 Kinematic Fit in CMS & the use of Top Quarks for Calibration - J. Heyninck (CMS) () more information | 10:30 --- Coffee Break --- |
| | 10:20 Pair production of heavy Q=2/3 singlets at LHC - J.A. Saavedra () transparencies | 10:45 --- Coffee Break --- | 10:15 --- Coffee Break --- | 11:10 Conference Resume Talk - J. Womersley () Slides |
| | 10:45 --- Coffee Break --- | 11:10 Uses of multivariate analysis methods - Y. Coadou (D0) () transparencies | 11:00 Single top Production at the LHC - A. Giammanco (CMS) () more information | 12:05 --- Closing of the Workshop --- |
| | 11:20 Contributions from flavour changing effective operators to the physics ofthe top quark at LHC - P. Ferreira () transparencies | 11:35 Tools for Top studies in ATLAS - V. Kostyukhin (ATLAS) () transparencies | 11:25 Top properties within the SM - B. Resende (ATLAS) () Slides | 12:20 --- Lunch --- |
| | 11:45 Top quark spin correlations in theories with large extra dimensions at the hadron Colliders - K. Smolek () more information | 12:00 Discussion () | 11:50 Top systematics in the H to WW search - M. Zanetti (CMS) () more information | |
| | 12:10 Matching top-bottom processes in charged Higgs production - J. Alwall () transparencies | 12:20 --- Lunch --- | 12:15 Top properties beyond the SM - N. Castro (ATLAS) () transparencies | |
| | 12:35 --- Lunch --- | | 12:40 --- Lunch --- | |
| PM | 14:15 **Session 2 - Top Quark Current Experimental Status** (until 18:50) () | 13:50 **Session 3 - Generators, Theoretical Modeling and Experimental Methods (continuation)** (until 17:20) () | 14:15 **Session 4 - At the Up-Coming Colliders (continuation)** (until 19:50) () | |
| | 14:15 Current Experimental Status - A. Juste (D0) () transparencies | 13:50 Spin effects in hadronic top quark pair production - W. Bernreuther () transparencies | 14:15 Top as Background for SUSY/BSM searches - S. Paktinat (CMS) () transparencies | |
| | 15:10 Measurements of Top quark pair production cross section & Search for Resonances - R. Rossin (CDF) () transparencies | 14:45 Event generators for top quark production and decays - S. Slabospitsky () transparencies | 14:40 Search for single top production in ep collisions at HERA - S. Xella (ZEUS/H1) () transparencies | |
| | 15:35 Measurements of Top quark decay properties - E. Varnes (D0) () transparencies | 15:20 ttbar Production at ATLAS and ttbar Monte Carlos - B. Kersevan (ATLAS) () transparencies | 15:05 Top at Future Colliders - L. Orr () more information | |
| | 16:00 --- Coffee Break --- | 15:45 ttbar Production at CMS - R. Chierici (CMS) () transparencies | 16:00 --- Coffee Break --- | |
| | 16:30 Precision Measurement of Top quark mass in lepton+jets channel - J. Cammin (D0) () transparencies | 16:10 Discussion () | 16:30 Top Threshold Physics - A. Hoang () more information | |
| | 16:55 Precision Measurement of Top quark mass in dilepton channel - B. Jayatilaka (CDF) () transparencies | 16:30 --- Coffee Break --- | 16:55 A theoretical update on t-tbar pair production near threshold - A. Signer () transparencies | |
| | 17:20 Search for single top quark production at the Tevatron - M. Begel (D0) () transparencies | 17:00 --- Visit to the University --- | 17:20 Current Status of the International Linear Collider - B. Foster () transparencies | |
| | 17:45 Discussion () | | 17:45 Discussion () | |
| | 18:30 --- Welcome Cocktail --- | | 19:30 --- Workshop Dinner --- | |

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# TOP2017 10th International Workshop on Top Quark Physics

## …Elba, Italy in 2008 (May)

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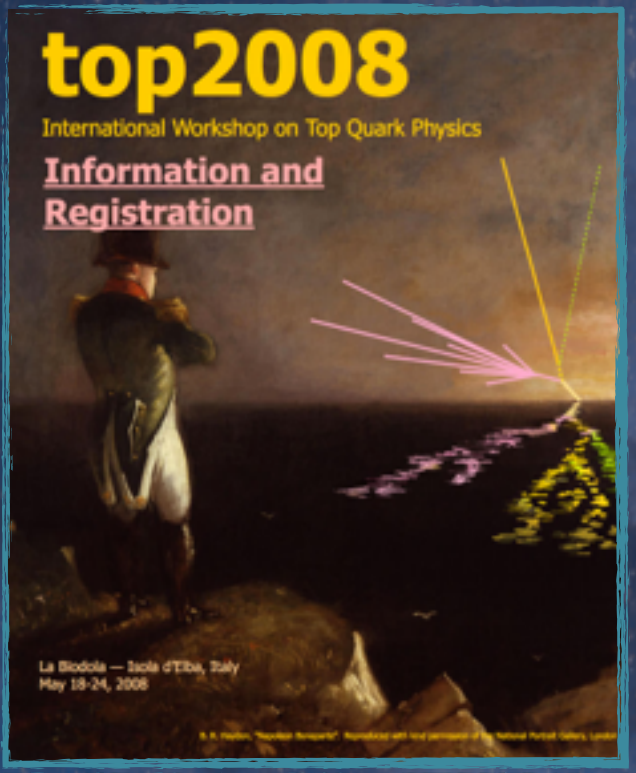

Roberto Tenchini
Chair

la Biodola

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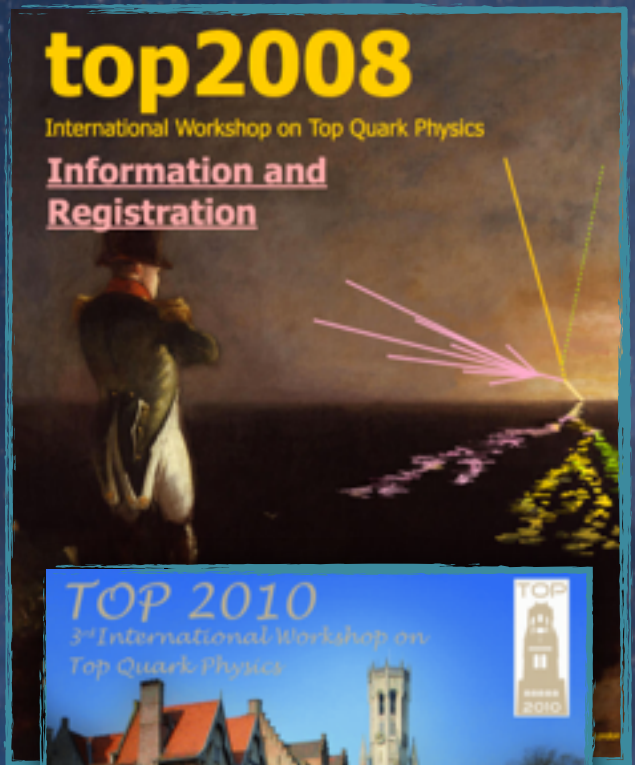

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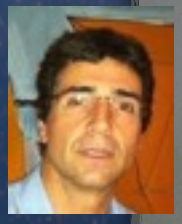
## Bruges, Belgium, 2010

**Constitution of the series of Workshops with a IAC and a LOC**



**Constitution of the International Workshops on Top Quark Physics (top20XY)**

The International Workshops on Top Quark Physics (top20XY) are aimed to bring together theorists and experimentalists to review the status and future prospects of top quark physics. The initial editions of the workshops took place in Coimbra (2006), Isola d'Elba (2008) and Bruges (2010). The scope of the workshops is to give a comprehensive picture of top physics, providing a critical assessment of future goals. The workshops are organized in a plenary fashion, privileging review talks, followed by adequate time for discussions. Preparation of talks on selected topics by multiple speakers, with one speaker giving the presentation and all speakers answering to questions, are encouraged. Participation to common meals and social activities is considered part of the programme, in order to stimulate discussions and encourage contacts among physicists working in the same field. Workshop proceedings and poster sessions are foreseen.The workshop takes place with annual or bi-annual frequency. The participation to the workshop is by invitation; the number of participants is limited.

2. The International Advisory Committee (IAC) is formed by three components
a) The founders of the top20Xy series, as permanent members (Werner Bernreuther, Jorgen d'Hondt, Fabio Maltoni, Michelangelo Mangano, Antonio Onofre, Roberto Tenchini, Scott Willenbrock).
b) One convener for each physics groups of experiments giving significant contributions to top quark physics.
c) Additional members from the community (chosen for each editions by the permanent members).
The chair of the previous-edition Local Organizing Committee (LOC) is also a member of the IAC.
The role of the IAC is primarily to contribute to the preparation of the physics programme of the workshop editions, initiating the discussion on the key elements of the programme and giving input to the Local Organizing Committee (LOC). The IAC is also in charge of selecting the locations for each edition of the workshop.
The chair of the IAC is either the chair of the previous-edition LOC or one of the permanent members.

3. The location of the n-th Workshop is chosen in the following way. Within 30 days of the end of the (n-1)th edition, expression of interests are sent to the IAC, accompanied by a description of the proposal, specifying possible venues, and giving the composition of the proposed LOC. The IAC chooses the location within 3 months from the end of the (n-1)th edition.
Important criteria of the choice are i) the involvement of the local group(s) in top-quark physics, ii) the adequacy of to proposed venue to fulfill the scope of the workshop, as described in the first paragraph.

Bruges, June, the 1st, 2010

Roberto Tenchini
Chair of IAC of TOP2010

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## …Sant Feliu de Guixols, Spain in 2011

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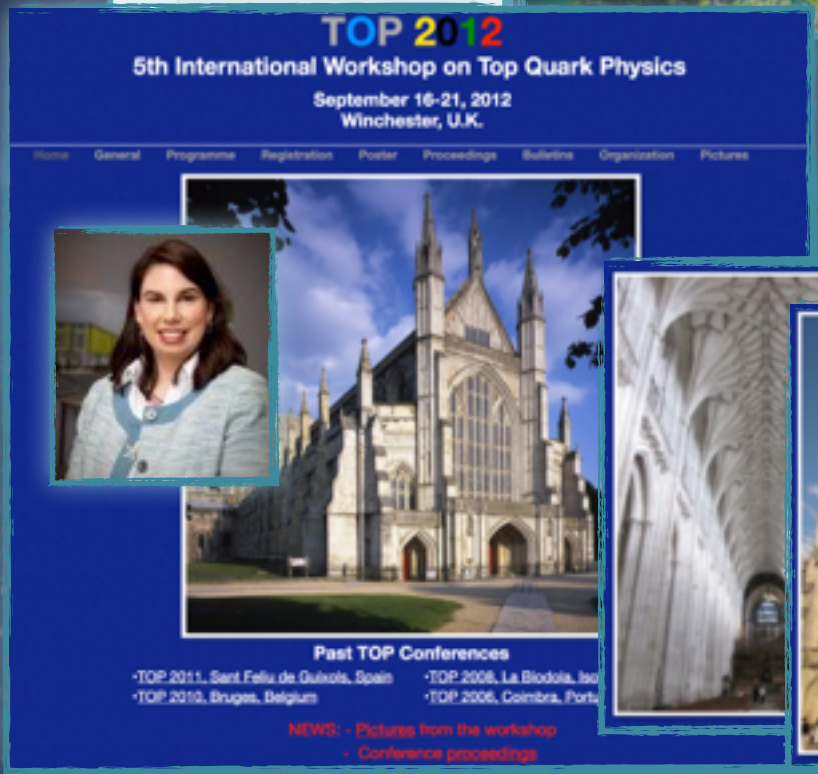


## …Winchester, England in 2012

1) Poster Session Particularly Vivid
2) Q&A for the first time

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## …Durbach, Germany in 2013

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**Social programme**

A poster session will be held on Staufenberg castle close to the conference venue of Durbach (catering by Hotel Ritter, Durbach). We will organise transportation, but the castle can also be reached on foot!

**…indeed a very wet poster session…at least for some of us !!**

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## …Cannes, France in 2014

TOP 2014
Cannes, France
from September 29th to October 3rd, 2014.

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TOP 2014
Cannes, France
from September 29th to October 3rd, 2014.

**The Workshop aims at maximising the scientific opportunity presented by:**
"The forthcoming **fully differential results for top pair production at NNLO**, and …"

**3 days before the TOP2014 a related event**

### Topical workshop on top quark differential distributions

26 Sep 2014, 14:00 → 28 Sep 2014, 18:00 Europe/Zurich

Cannes, France

Alexander Mitov (University of Cambridge) , Juan Rojo Chacon (CERN) , Michal Czakon (RWTH Aachen)

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## ...Ischia, Italy in 2015

1) Young Scientist Forum for the first time
2) Theoretical Mini-Workshop for the first time

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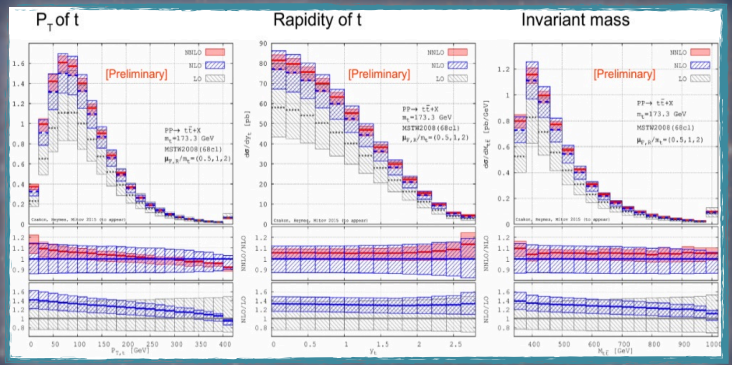
**Long awaited NNLO vs NLO**
**$P_T$ (top), Rapidity of top**
**Czakon,Fiedler,Heymes,Mitov**
**(almost) 10 years after TOP2006 !**

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not only physics is made of special moments

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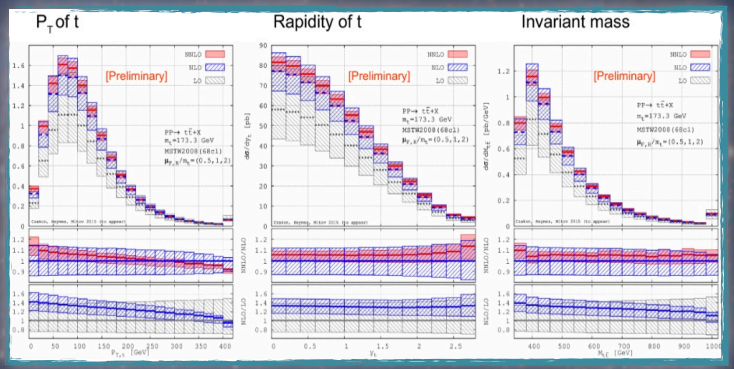


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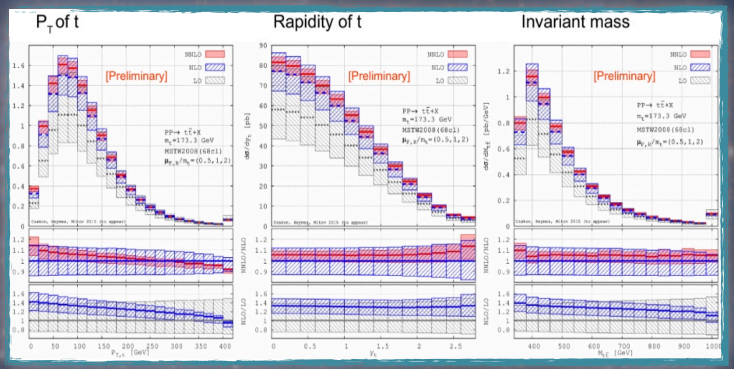


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## …Olomouc, Czech Republic in 2016

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## ...Braga, Portugal in 2017

**It has been quite a journey up to now for the TOP Series of Workshops…**

**…there is a lot to discuss about, specially with the amount of data expected at the LHC in the future ahead!**

**THANKS !!**

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