



High Energy  
High Intensity  
Hadron Beams



**APD**

Accelerator Physics and  
synchrotron Design

*CARE-HHH-APD event*  
**BEAM'07**

*"Finalizing the Roadmap for the Upgrade  
of the LHC and GSI Accelerator Complex"*

CERN, Switzerland, 1-5 October 2007

comprising 4 parts:

- 1) Mini-Workshop on SLHC Beam Performance, 1-2 October
- 2) CERN-GSI Meeting on Collective Effects, 2-3 October
- 3) Francesco Ruggiero Memorial Symposium, 3 October
- 4) Mini-Workshop on Upgrade of LHC Injector Complex, 4-5 Oct.

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## BEAM'07 main topics:

- critical upgrade choices for LHC injector complex
- beam dynamics limits for LHC upgrade scenarios
- FAIR complex at GSI

## BEAM'07 goals:

- identify key issues
- compare LHC luminosity reach for various scenarios
- develop optimal solutions

# BEAM'07 context

continuation of

- HHH-2004 at CERN, November 2004  
<http://care-hhh.web.cern.ch/CARE-HHH/HHH-2004>
- LUMI'05 in Arcidosso, September 2005  
<http://care-hhh.web.cern.ch/CARE-HHH/LUMI-05>
- CERN-GSI bilateral working meeting on collective effects, GSI, March 2006 [http://care-hhh.web.cern.ch/CARE-HHH/Collective Effects-GSI-March-2006](http://care-hhh.web.cern.ch/CARE-HHH/Collective%20Effects-GSI-March-2006)
- LUMI'06 Valencia, October 2006  
<http://care-hhh.web.cern.ch/CARE-HHH/LUMI-06>

# Francesco Ruggiero Memorial Symposium



Council Chamber  
3 October 2007  
14:30

Topics: Francesco's early days at CERN; LEP, LHC & LHC-upgrade; localized and other impedances; beam-beam interaction; LHC collective effects, electron cloud; echoes; EPS-IGA, international collaborations, CARE-HHH; etc.

Speakers: S. Berg, C. Biscari, O. Bruning, M. Furman, K. Hirata, A. Mostacci, L. Palumbo, S. Petracca, Q. Qin, W. Scandale, F. Zimmermann, B. Zotter

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# BEAM'07 statistics

- **73 registered participants**
- **17 from USA (US-LARP: BNL, FNAL, LBNL, & SLAC; ORNL)**
- 10 from Germany (GSI, FZJ)**
- 4 from Italy (INFN Genova, INFN Milano, U Roma “La Sapienza”)**
- 1 from France (CEA)**
- 2 from Japan (KEK, Sokendai)**
- 1 from China (IHEP)**
- 38 from CERN**

## other goals

- prepare FP7 requests
- prepare information basis for CERN's long-term decisions on LHC upgrade

## BEAM07 web & INDICO sites

<http://care-hhh.web.cern.ch/CARE-HHH/BEAM07>

[http://indico.cern.ch/conferenceOtherViews.py?  
view=cdsagenda&confId=20082](http://indico.cern.ch/conferenceOtherViews.py?view=cdsagenda&confId=20082)

