

# Welcome !!

to the

# DITANET



## Conference on Beam Diagnostics

*Carsten P. Welsch*



# What is DITANET ?



- Information about all projects / trainees
- Network-wide activities
- Dissemination and international partnership

# What is DITANET ?

- Largest-ever EU funded training network in beam instrumentation and diagnostics;
- Development of beyond state-of-the art diagnostics for accelerators;
- Aim: Training of early stage researchers (*18 ESRs, 3 ERs*)
- Recognized importance of beam diagnostics at European level !  
(only 68 from 905 selected - with 11 in physics)

C.P. Welsch, Proc. BW 2010, IPAC 2011

# The DITANET Consortium

## Network Participants



## Associated Partners



# Adjunct Partners

- Part of a long term strategy – DITANET is growing



# What are the project's main aims ?

- Training of fellows through cutting-edge research;
- Improve their career perspectives, impact positively on their employability:
  - React to challenges from global labour market;
  - Contribute to reaching EU objectives (Lisbon);
  - React to changes induced by Bologna process.
- Close collaboration with industry partners;
- Initiate new community events;
- Secondment program between countries/sectors.

# DITANET Schools (2009 and 2011)

- Beam Diagnostics, held in London and Stockholm
- > 70 participants and lecturers
- Lecturers from across consortium.

Time	Monday	Tuesday	Wednesday-RAL	Thursday	Friday
8:30		Definition of Particle Beams (C.P. Welsch)	Board coaches	Emittance (G. Blair)	Special Session - only for DITANET trainees -
9:30		Current (J.C. Denard)	Transverse Beam Profile 1 (E. Bravin)	Position I (P. Forck)	Part. Detection (A. Drouart)
10:30					
11:00		Energy (S. Bernai)	Transverse Beam Profile 2 (E. Bravin)	Position II (P. Forck)	e <sup>-</sup> cloud Diagnostics (M. Covo)
12:00		Longitudinal Beam Profile I (T. Lefevre)	Beam Loss (Kay Wittenburg)	Tune (F. Zimmermann)	Industry I (Introduction, H. Smith, A. Benzas)
13:00					
14:30	Welcome / Introduction DITANET	Study Session <i>split in smaller groups</i>	Visits	Study Session <i>split in smaller groups</i>	Industry II (V. Hoffing, T. Chapman, C. Bocchetta)
15:30	Introduction to Accelerators I (H. Wiedemann)	Longitudinal Beam Profile II (P. Karataev)		Poster Session	Conclusion
16:30					
17:00	Introduction to Accelerators II (H. Wiedemann)	Seminar: Appl. of Synchrotron Light (H. Wiedemann)		Seminar: Acc. for medical applications (A. Peters)	
18:00					

CERN Indico: 55242, 112220



# DITANET Topical Workshops

- Low energy, low intensity beam diagnostics (*GSI, HIT*)
- Longitudinal beam profile measurements (*CI*)
- Ultra cold electron beam diagnostics (*CI*)
- High intensity proton beam diagnostics (*CEA*)
- Technology transfer (*i-tech*)
- Detector technology (*CNA*)

## Coming up:

- Beam loss monitoring (*DESY*)
- Beam position monitoring (*CERN*)

*Full information: Homepage and CERN indico.*

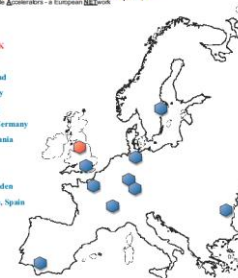


# Employability and networking

## ■ Complementary skills school, Liverpool



- University of Liverpool, UK
- CEA, Saclay, France
- CERN, Geneva, Switzerland
- DESY, Hamburg, Germany
- GSI, Darmstadt, Germany
- HHT GmbH, Heidelberg, Germany
- INFN-IBR, Magurek, Romania
- Royal Holloway
- University of London, UK
- Stockholm University, Sweden
- CNA / University of Seville, Spain



### DITANET School on Complementary Skills

Basic diagnostic systems are essential constituents of any particle accelerator. They monitor the operation of the beam and help a physicist to understand what can be done to improve an accelerator complex to meet specific requirements.

DITANET is the largest ever EU funded training network and focuses on the development of basic engineering skills for particle accelerators. It offers a unique opportunity to young scientists to gain industrial experience.

To guarantee international competitiveness of all partners, the network will organize an international School at the University of Liverpool between March and April of 2016.

Partners:

- University of Liverpool
- CEA Saclay
- CERN
- DESY
- GSI
- HHT GmbH
- INFN-IBR
- Royal Holloway
- University of London
- Stockholm University
- CNA

Programme:

- Project Management
- Presentation Skills
- Problem Solving Techniques
- Project Writing Techniques
- Self Management
- Scientific Writing
- Conclusion

More information about the school and DITANET can be found at: [www.ditanet.eu](http://www.ditanet.eu)

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 9:30		Project Management I  Fistral: Paul Lyden	Working Within an International Network <u>Guided Discussion</u>  Building the Bridge to the Industry Sector  Carsten Welsch + speakers	Time Management  Ruth Bass	Scientific Writing  ThinkWrite: Pete Moore
9:30 10:30					
11:00 12:00		Presentation Skills II  Carsten Welsch	Project Management II  Fistral: Paul Lyden	Problem Solving Techniques  Ruth Bass	Scientific Writing  ThinkWrite: Pete Moore
12:00 13:00				Self Management  Ruth Bass	Conclusion  Carsten Welsch
14:00 15:00 16:00	Welcome/Introduction of participants  Carsten Welsch	Small groups: Presentation Skills <i>Individual assessment of participants through 5 min. short talks</i>	Visit to CI / Daresbury	General Patent Issues and Intellectual Property Right  Marks-Clerk: Peter Roberts	
16:30 17:30					Presentation Skills I  Carsten Welsch



# Dissemination: DITANET Website



The screenshot shows the DITANET website interface. At the top left is the University of Liverpool logo. To the right, navigation links include 'University: Home | A-Z Index | Staff | Students'. Below this is a search bar with 'Website' and 'Courses' tabs and a 'SEARCH' button. A breadcrumb trail reads 'You are here: University Home > DITANET home'. The main content area features a 'DITANET' header, a description of the project, and a large 'DITANET' logo with stars. A quote on the right states: 'Without an adequate set of beam instrumentation, it is impossible to operate a particle accelerator - let alone optimize its performance.' Below the main text are logos for 'PEOPLE' and 'MARIE CURIE ACTIONS'. A sidebar on the left contains a 'DITANET home' menu with links to Network structure, Projects, Vacancies, Documents, News, Events, Beam Instrumentation Booklet, Administration, Downloads, and Links. It also includes 'Web links', 'Partners Area and DITANET Blog', and 'DITANET photo album'. A bottom sidebar lists 'DITANET International Conference - Accelerator Diagnostic Techniques: Seville 9th-11th November 2011' and 'DITANET PRIZE - €1,000 cash prize Application details'.

[www.liv.ac.uk/ditanet](http://www.liv.ac.uk/ditanet)

# Quarterly Newsletter

- Part of the dissemination strategy
- Contribution from all network partners
- Announcement and review of activities
- Subscription by email to coordinator/manager



# Conference: Special Awards

- Prizes will be awarded for the best talk and best poster at the end of the conference;
- DITANET prize winner will be announced at the end of the conference.

Enjoy the conference & discussions !