

# **EuCARD - HE-LHC'10 AccNet mini-workshop on a “High-Energy LHC”**

**Thursday 14 October 2010 - Saturday 16 October 2010**

**Villa Bigli, MALTA  
Programme**

## Thursday 14 October 2010

### Shuttle from Hotel Marina to Villa Bigli - (07:45-08:15)

#### Session 1: Introduction & overview - (08:30-12:30)

- **Conveners:** Jean-Pierre KOUTCHOUK; Roger BAILEY, (s.secr.)

time	title	presenter
08:35	Welcome, Research and Innovation Governance in Malta 10' (00h15')	SAMMUT, Nicholas (MCST)
08:50	Physics case 25' (00h30')	WELLS, James (CERN)
09:20	Motivation, Status and Strategy HE-LHC studies 10' (00h15')	MYERS, Steve (CERN)
09:35	Beam parameters, optics, and beam-dynamics issues 25' (00h30')	ZIMMERMANN, Frank (CERN)
10:05	COFFEE BREAK 20' (00h25')	
10:30	Magnet concepts and cost evaluation 20' (00h25')	TODESCO, Ezio (CERN)
10:55	Relevant studies for VLHC/SSC 20' (00h25')	WIENANDS, Uli (SLAC)
11:20	Detector plans and constraints for HE-LHC 20' (00h25')	NESSI, Marzio (CERN)
11:45	Questions and discussion 40' (00h40')	

### LUNCH BREAK 2h - (12:30-14:30)

#### Session 2: Magnets for arcs and IRs - (14:30-18:45)

- **Conveners:** Lucio ROSSI; Ezio TODESCO, (s.secr.)

time	title	presenter
14:30	US-LARP magnet development 20' (00h25')	SABBI, GianLuca (LBNL)
14:55	LBNL high-field core programme 15' (00h20')	CASPI, Shlomo (LBNL)
15:15	KEK effort for high field magnets 15' (00h20')	NAKAMOTO, Tatsushi (KEK)
15:35	EuCARD magnet development 15' (00h20')	DE RIJK, Gijs (CERN)
15:55	COFFEE BREAK 25' (00h25')	
16:20	Relevant experience from FNAL core program in high field magnets 15' (00h20')	ZLOBIN, Sasha (Fermilab)
16:40	Status of HTS magnets 20' (00h25')	SCHWARTZ, Justin (NCSU)
17:05	Texas A magnet development 15' (00h20')	MCINTYRE, Peter (Texas University)
17:25	High Field HTS Magnets 10' (00h15')	GUPTA, Ramesh (BNL)
17:40	Next steps in magnet R 10' (00h15')	GOURLAY, Stephen (LBNL)
17:55	Questions and discussion 45' (00h45')	

### Return Shuttle to Hotel Marina - (18:55-19:25)

### Depart from Hotel Marina to Restaurant by organized bus - (20:15-20:30)

### DINNER - (20:30-22:30)

### Return to Hotel Marina by organized bus (time according to meal) - (23:00-23:20)

## Friday 15 October 2010

### Shuttle from Hotel Marina to Villa Bigli - (07:45-08:15)

#### Session 3: Synchrotron radiation and beam dynamics - (08:30-12:15)

- Conveners: Vladimir SHILTSEV; Elias METRAL, (s.secr.)

time	title	presenter
08:30	Heat load & cryogenics 20' (00h25')	DELIKARIS, Dimitri (CERN)
08:55	Requirements from the vacuum system 20' (00h25')	JIMENEZ, Jose Miguel (CERN)
09:20	Beam screen issues 20' (00h25')	METRAL, Elias (CERN)
09:45	COFFEE BREAK 20' (00h20')	
10:05	IBS and cooling at RHIC& HE-LHC active emittance control 15' (00h20')	FISCHER, Wolfram (BNL)
10:25	Modeling IBS and cooling 15' (00h20')	BOINE-FRANKENHEIM, Oliver (GSI)
10:45	SR damping, IBS, and beam-beam simulations 15' (00h20')	SHILTSEV, Vladimir (Fermilab)
11:05	SR + beam-beam simulations 15' (00h20')	OHMI, Kazuhito (KEK)
11:25	Questions and discussion 45' (00h45')	

### Depart for Social Lunch Event - (12:15-12:30)

### SURPRISE LUNCH EVENT : Dress code : "CASUAL and warm depending on weather !!" - (12:30-15:00)

#### Session 4: HE-LHC injector & infrastructure - (15:15-19:10)

- Conveners: Eric PREBYS; Luca BOTTURA, (s.secr.)

time	title	presenter
15:15	Optimal injector cascade for HE-LHC and possible implementations 15' (00h20')	GAROBY, Roland (CERN)
15:35	Using Tevatron magnets for HE-LHC or new ring in LHC tunnel? 15' (00h20')	PIEKARZ, Henryk (FNAL)
15:55	FAIR magnets and design concepts of interest to HE-LHC 15' (00h20')	SPILLER, Peter (GSI)
16:15	Magnet design issues & concepts for the new injector 15' (00h20')	FABBRICATORE, Pasquale (INFN)
16:35	COFFEE BREAK 15' (00h15')	
16:50	Using LHC as injector, and possible uses of HERA magnets/coils? 15' (00h20')	MESS, Karl Hubert (CERN)
17:10	Intensity limits and machine protection 25' (00h30')	ASSMANN, Ralph (CERN)
17:40	Beam transfer and beam dump issues 20' (00h25')	GODDARD, Brennan (CERN)
18:05	Radioprotection issues after 20 years of LHC operation 15' (00h20')	FORKEL-WIRTH, Doris (CERN)
18:25	Questions and discussion 45' (00h45')	

### Return Shuttle from Villa Bigli to Hotel Marina - (19:15-19:45)

### DINNER. Hotel Marina "The Grill 3301" - (20:30-22:30)

## Saturday 16 October 2010

### Shuttle from Hotel Marina to Villa Bigli - (08:00-08:30)

#### Session 5: Summing up - (08:45-11:15)

- Conveners: Steve MYERS; Frank ZIMMERMANN, (s.secr.)

time	title	presenter
08:45	Reports from Session 1 30' (00h30')	KOUTCHOUK, Jean-Pierre (CERN)
09:15	Reports from Session 2 30' (00h30')	ROSSI, Lucio (CERN)
09:45	COFFEE BREAK 30' (00h30')	
10:15	Reports from Session 3 30' (00h30')	SHILTSEV, Vladimir (Fermilab)
10:45	Reports from Session 4 30' (00h30')	PREBYS, Eric (Fermilab)

### Shuttle from Villa Bigli to Airport. - (11:45-12:15)