

BULLETIN # 2

11th International Conference on B-Physics at Hadron Machines

25th-29th September 2006

Keble College, University of Oxford, UK

Conference web site: www.physics.ox.ac.uk/Beauty2006

Conference Email: beauty2006@physics.ox.ac.uk

This is the second bulletin of the 11th International Conference on B-Physics at Hadron Machines (Beauty2006) which will be held from the 25th-29th September 2006 at Keble College, University of Oxford, UK. Bulletin #2 will be the last bulletin before the conference. It details the scientific programme, outlines the social programme and gives travel information to Oxford.

Conference venue and on-site registration

Accommodation will be at Keble College <http://www.keble.ox.ac.uk/>, one of the 36 Colleges of the University of Oxford. The talks will be held in the Martin Wood Lecture Theatre in the Department of Physics <http://www.physics.ox.ac.uk/> just across the road from the College. The entrance to Keble College is situated on Parks Road, just around the corner from Keble Road.

Accommodation check-in at Keble College Lodge is open from 14:00 on Sunday 24th September. From 15.00 -19.00 the registration desk will be open in the Martin Wood Building. The registration desk will re-open at 8:30 on Monday 25th September in the Martin Wood and the conference will begin at 9:00. The final session will be on Friday afternoon and the conference will finish at approximately 16:00.

Details of accommodation in Keble can be found in Bulletin 1.

Conference secretary and Keble College contacts:**Conference Secretary:** Sue Geddes**Address:** Denys Wilkinson Building, Keble Road, Oxford OX1 3RH, UK**Secretariat E-mail:** beauty2006@physics.ox.ac.uk**Tel.:** +44 1865 273353 Fax: +44 1865 273417**Keble College address:** Keble College, Parks Road, Oxford, OX1 3PG, UK.**Keble College Lodge Tel.:** +44 1865 272727

Upon registration, participants will receive their conference material such as a badge, programs, list of participants, and useful information such as the timetable of social events and a list of places to eat and drink. During the conference, the registration desk will usually be manned, and there will be a notice board for announcements and communications for conference delegates.

Scientific programme

Monday 25th September			
09:00-09:15	Welcome	Roger Cashmore	University of Oxford
Session 1: Triangle status and $\sin 2\beta$ – Chair: Neville Harnew, Oxford			
09:15-10:00	CKM fits	Stephane t’Jampens	LAPP Annecy-Le-Vieux
10:00-10:25	$\sin 2\beta$ via tree processes & ambiguity removal	Heiko Lacker (BaBar)	University of Dresden
10:25-10:50	$\sin 2\beta$ via penguin processes	Y. Ushiroda (Belle)	KEK
10:50-11:20	Coffee		
Session 2: Triangle sides from B_s mixing and V_{ub}-Chair: Steve Blusk, Syracuse			
11:20-11:50	B_s mixing in D0	Peter Tamburello	University of Arizona
11:50-12:20	B_s mixing in CDF	Alberto Belloni	MIT
12:20-12:50	V_{ub} review	Lawrence Gibbons (CLEO)	Cornell University
12:50-14:15	Lunch		
Session 3: LHC experiment status-Chair: Clara Matteuzzi, Milano			
14:15-14:35	ATLAS detector and commissioning status	Helfried Burckhart	CERN
14:35-14:55	ATLAS first-run scenarios for B physics	Paula Eerola	University of Lund
14:55-15:15	CMS detector status	Oliver Buchmuller	CERN
15:15-15:35	CMS commissioning and first-data scenarios	Frank-Peter Schilling	CERN
15:35-15:55	LHCb status	Lluís Garrido	University of Barcelona
15:55-16:15	LHCb first run scenarios incl. calibration & alignment	Gloria Corti	CERN

16:15-16:45	Tea		
Session 4: Production, spectroscopy and lifetimes-Chair: Marco Zito, DAPNIA/Saclay			
16:45-17:05	Heavy flavour production	Jennifer Pursley (CDF)	John Hopkins University
17:05-17:25	B_c and excited B states: Tevatron review	Remi Mommsen (D0)	University of Manchester
17:25-17:45	Branching ratios and lifetimes B_s, A_b etc.: Tevatron review	Satyajit Behari (CDF)	John Hopkins University
18:00-19:30	Reception: Natural History Museum		

Tuesday 26th September			
Session 1: Triangle sides: V_{cb} and form factors-Chair: Lawrence Gibbons, Cornell			
09:00-09:25	V_{cb} & semileptonic form factors	Elisabetta Barbiero (Belle)	University of Melbourne
09:25-09:55	Lattice QCD	Christine Davies	University of Glasgow
09:55-10:35	Charm semileptonic form-factors and decay constants f_{D^+} and $f_{D_s^+}$	Peter Zweber (CLEO)	University of Minnesota
10:35-11:05	Coffee		
Session 2: Charmless decays & α (Part 1) -Chair: Paula Eerola, Lund			
11:05-11:35	α from $B \rightarrow \pi\pi, \rho\rho$	Jure Zupan	Carnegie Mellon
11:35-12:05	Measurements of α & future projections	Fabrizio Bianchi (BaBar)	University of Torino
12:05-12:35	BR and direct CP asymmetries of charmless decay modes at the Tevatron	Michael Morello (CDF)	University of Pisa
12:45-13:45	Lunch		
Session 3: Charmless decays & α (Part 2) -Chair: Elliott Cheu, Arizona			
13:45-14:15	$B \rightarrow \rho\pi, \rho\rho$ and the measurement of α	Patrick Robbe (LHCb)	LAL Orsay
14:15-14:45	$B \rightarrow h^+ h^-$ prospects	Angelo Carbone (LHCb)	University of Bologna
14:45-15:15	Hadronic B decays	Martin Beneke	University of Aachen
16:00	Walking tour of Oxford starting at Christ Church Meadows Gate, St. Aldates		
18:15	Reception at Blackwell's Bookshop, Broad St.		

Wednesday 27th September			
Session 1: γ measurements-Chair: Tim Gershon, Warwick			
09:00-09:30	γ from DK	Jure Zupan	Carnegie Mellon
09:30-09:55	Measurements of γ & future projections (Dalitz analysis)	Karim Trabelsi (Belle)	KEK
09:55-10:20	Measurements of γ & future projections (ADS, GLW)	Marco Zito (BaBar)	DAPNIA/Saclay
10:20-10:45	γ from $B \rightarrow DK$ strategies	Yeuhong Xie (LHCb)	University of Edinburgh
10:45-11:15	Coffee		
Session 2: Leptonic B decays-Chair: Uli Nierste, Karlsruhe			
11:15-11:45	Leptonic and semileptonic decays: hadronic parameters	Gil Paz	IAS, Princeton
11:45-12:05	Time-integrated asymmetry in semileptonic B decays in $D0$	Elliot Cheu	University of Arizona
12:05-12:25	New Charmonium-like states	Bruce Yabsley (Belle)	University of Sydney
12:25-13:25	Lunch		
13:30	Excursion to Warwick Castle		

Thursday 28th September			
Session 1: Triggers-Chair: Dines Hansen, Copenhagen			
09:00-09:25	CDF: B physics performance & trigger-operational experience	Alberto Annovi	INFN Frascati
09:25-09:50	$D0$: B physics performance & trigger-operational experience	Daniela Bauer	Imperial College
09:50-10:20	B triggers ATLAS and CMS	Julie Kirk (ATLAS)	RAL
10:20-10:50	LHCb trigger system	Eduardo Rodrigues	NIKHEF
10:50-11:20	Coffee		
Session 2: Rare decays & new physics (Part 1) -Chair: Martin Beneke, Aachen			
11:20-11:50	Rare decays as a probe of new physics	Tobias Hurth	CERN
11:50-12:20	Radiative and EW penguins (including $K^* \mu^+ \mu^-$)	Jeff Richman (BaBar)	UC Santa Barbara
12:20-12:50	Rare decays $B \rightarrow lv, ll, ll\gamma$	Koji Ikado (Belle)	Nagoya University
12:50-14:15	Lunch		

Session 3: Rare decays & new physics (Part 2): -Chair: Jeff Richman, UCSB			
14:15-14:45	$B \rightarrow \mu\mu$ limits CDF/D0 review	Cheng-Ju Lin (CDF)	Fermilab
14:45-15:15	Review of searches and prospects for leptonic rare B decays	Maria Smizanska (ATLAS)	University of Lancaster
15:15-15:35	Rare decays, radiative and $b \rightarrow sll$ review	Stefano De Capua (LHCb)	Rome II Tor Vergata
15:35-16:05	Tea		
Session 4: B_s physics-Chair: Peter Schlein, UCLA			
16:05-16:35	B_d and B_s : mass and width difference and CP violation	Uli Nierste	Karlsruhe University
16:35-17:05	$\Upsilon(5S)$: what has been learned and what can be learned	Steve Blusk (CLEO)	Syracuse University
17:05-17:35	$B_s \rightarrow J/\psi\phi$ update: lifetime difference and mixing phase	Avdhesh Chandra (D0)	UC Riverside
17:35-18:05	ϕ_s from $J/\psi\phi$: LHC review	Nicolo Magini (CMS)	Università di Firenze
18:30-19:30	Concert in Keble Chapel: Organ recital by Mr John Oxlade, City Organist of Oxford		
19:30	Conference reception and banquet		

Friday 29th September			
Session 1: Flavour physics beyond the B sector-Chair: Bruce Yabsley, Sydney			
09:00-09:30	Charm mixing & CP violation review	David Asner (CLEO)	Carleton University
09:30-10:00	Hadronic charm decays	Henry Band (BaBar)	University of Wisconsin
10:00-10:30	Charm physics at LHCb	Raluca Muresan (LHCb)	University of Oxford
10:30-10:55	Charm studies at CDF	Burkard Reisert	FNAL
10:55-11:25	Coffee		
Session 2: Experimental systematics-Chair: Val Gibson, Cambridge			
11:25-11:55	CDF/D0: flavour tagging incl. calibration and control	Tania Moulik (D0)	University of Kansas
11:55-12:25	LHCb: flavour tagging incl. calibration and control	Hugo Ruiz	University of Barcelona
12:45-13:45	Lunch		
Session 3: The future & summary-Chair: Guy Wilkinson, Oxford			
13:45-14:15	LHCb upgrade plans	Franz Muheim	University of Edinburgh
14:15-14:45	Future B factories: SuperBelle and new ideas on recirculating Linacs	Adrian Bevan	Queen Mary College, London
14:45-15:25	Conference summary & future prospects	Tim Gershon	University of Warwick
15:25	Tea and farewell		

Meal arrangements

For those staying in Keble College, full English breakfast will be provided. All lunches will also be served in Keble College. Breakfast and lunch are included in the conference fee. Also included in the conference fee are dinners on the Wednesday and Thursday evening. Delegates should find restaurants for dinner on the Sunday, Monday and Tuesday evenings. A list of restaurants and pubs will be provided on arrival.

During session breaks, coffee and tea will be served free of charge to all participants.

Social Program and banquet

The social program of Beauty 2006 has a welcome reception, an excursion, and a conference dinner. All the costs of the social programme are included in the conference fee.

Sunday 24th September: Arrival and on-site registration.

Monday 25th September: Between 18:00 – 19:30 there will be a welcome reception at the Oxford University Natural History Museum <http://www.oum.ox.ac.uk/>. The Oxford University Museum of Natural History houses the University's scientific collections of zoological, entomological and geological specimens. The Museum itself is a spectacular Grade 1 listed building, renowned for its spectacular neo-Gothic architecture. Among its most famous features are the Oxfordshire dinosaurs, the dodo, and the swifts in the tower.

Tuesday 26th September: Starting at 16:00 a walking tour of Oxford and a number of its Colleges. The tour will begin at Christ Church and visit the historic cathedral and hall. The tour will continue past many of the other historic sights of Oxford. The tour concludes with a drinks reception at the world-famous Blackwell's bookshop beginning at 18:15. There will be 10% discount on all books purchased.

Wednesday 27th September: Afternoon and evening – Tour: Warwick Castle <http://www.warwick-castle.co.uk/>. Warwick Castle is considered the finest mediaeval castle in the UK. There are many attractions at Warwick Castle from the dungeons to the Great Hall and State Rooms. Light afternoon tea will be served during the visit. The visit to Warwick Castle will be followed by dinner at the Maytime Inn, a traditional English pub in the Cotswold Hills. <http://www.themaytime.com/>.

Thursday 28th September: From 18:30 to 19:30 there will be a concert in Keble Chapel. An organ recital will be performed by Mr John Oxlade, City Organist of Oxford. The Chapel can also be viewed at this time. As with the rest of the college it is a stunning example of Gothic Revival architecture. It also contains the famous Pre-Raphaelite painting The Light of the World by Holman Hunt. Starting at 19:30 there will be a drinks reception followed by the conference banquet in Keble College.

Friday 29th September: Farewell.

Weather in Oxford

The weather in Oxford in late September can be unpredictable <http://www.worldclimate.com/cgi-bin/grid.pl?gr=N51W001>. It is best to bring warm clothing and rain coats, although an “Indian summer” with much warmer weather is certainly not excluded. The average temperature is 14 C and average rainfall is 6 cm.

Getting to Oxford

Details on how to get to Oxford can be found on the following website: <http://www.ox.ac.uk/aboutoxford/how.shtml> .

If travelling to Oxford by air, London Heathrow and Gatwick airports have the best and easiest links to Oxford. The cheaper airlines (Easyjet and Ryanair) also serve Luton and Stansted airports, although from these airports getting to Oxford is not quite as straightforward.

- The recommended means of travel from London Heathrow Airport is by X70 bus (which departs every 20-30 minutes through the day, journey time ~1 hour 30 minutes and costs £19 return). See <http://www.oxfordbus.co.uk/heathrow.html> .
- The X70 bus also serves Gatwick airport with links every hour, journey time ~2 hours. The cost is £27 return. See <http://www.oxfordbus.co.uk/gatwick.html> .
- From Stansted airport, a coach runs approximately every 2 hours, but goes “around the houses” and is very slow, see <http://www.nationalexpress.com/> . The cost is £22 and the journey time is ~3 ¼ hours. The trains connects are more frequent. The route is the Stansted Express to London Liverpool Street, underground to Paddington from which trains run frequently to Oxford, see <http://www.nationalrail.co.uk/> for timetables. The journey time is ~3 hours and cost is £40 or £60 return for on or off peak travel, respectively.
- From Luton airport, a coach runs every 2 hrs <http://www.nationalexpress.com/> . The cost is ~£15 and journey time is ~2 hrs. More frequent connections are available by train. Trains run from Luton Airport Parkway station to Oxford via London. Two changes are necessary, the train arrives at St Pancras then you must take an underground link to Paddington, from which trains run to Oxford, see

<http://www.nationalrail.co.uk/> . The journey time is ~3 hrs and the cost is ~£30 or £60 return for on or off peak travel, respectively.

- From London City Airport one can connect to either frequent bus or train services to Oxford. By train, take the Silverlink train from the airport to Queen's Park, then take the underground to London Paddington, see <http://www.nationalrail.co.uk/>. Journey time is ~3 hours and the cost is ~£30 return. By bus, take the Silverlink train to Highbury and Islington then the underground to Victoria station (<http://www.nationalrail.co.uk/>). From Victoria there are two frequent bus services to Oxford: the Oxford Tube, see <http://www.oxfordtube.com/> or the Oxford Express, see <http://www.oxfordbus.co.uk/espress1.shtml>. The journey time is ~3 hours and the cost is ~£20 return.
- From Birmingham airport there is an hourly direct rail link to Oxford, see <http://www.nationalrail.co.uk/>, which takes ~1 hour and costs £25 to £40.

More information on how to find Keble College and the Physics department can be found on the website <http://www.physics.ox.ac.uk/contact/GettingToOxford.pdf>, where a map showing the bus station (Gloucester Green) and the train station is shown. Referring to the map, Keble College is located between Keble Road, South Parks Road and Blackhall Road. The main entrance is on Keble Road. The train station is about a 20 minute walk to Keble College; Gloucester Green is about 15 minutes. A taxi from both locations will cost around £4-5.

Additional information on how to find Keble College can be found on <http://www.keble.ox.ac.uk/support/location.php> .

Please note: there is no parking at Keble College or in the Physics Department for car users; street parking is limited to 2 hours and is expensive. There is an (insecure) park and ride scheme which can be used. More details can be found here: <http://www.physics.ox.ac.uk/contact/findus.htm> . However we strongly recommend you not to bring a car into Oxford.

Registration

Details of the registration procedure and costs can be found in Bulletin 1. The deadline for the early payment fee is August 25th. If you choose to pay on-site, the following methods can be used:

1. Credit card

Please use the on-line registration. Mastercard and Visa are accepted; payment must be in £ sterling.

2. Payment by cheque

Only cheques in £ sterling are accepted. UK cheques or Eurocheques should be made payable to "Dept. of Physics, University of Oxford".

Provided a deposit has been sent before the deadline date, a late-payment fee will not be charged, otherwise it will be.

Visas

If you need a visa for the UK and a letter of invitation to attend the conference, please contact the organizers immediately.

Proceedings

The proceedings will be published in Nucl. Phys. (Proc. Suppl.). All speakers are expected to contribute to the proceedings; further instructions will be given at the later stage. Note that papers cannot be accepted if they have been published elsewhere. Instructions for submission of papers will be given after the conference.

E-mail and Laptop Service

A limited number of PCs will be available located around the Martin Wood theatre. We very much encourage you to bring your laptop: wireless access will be provided, which will work in the vicinity of the Martin Wood Lecture theatre. Furthermore, Keble will provide internet services in the rooms, free of charge. However, it is not wireless so make sure you bring an ethernet cable with you.

Presentations

Electronic display of presentations (PowerPoint, PDF) is essential. Speakers must visit the Registration Desk well in advance of the session in which they are scheduled to speak and provide a copy of their talk. Presentations will be copied to the conference PC from which they will be displayed. Speakers are not allowed to bring their own laptop to the stage for display of their presentations.

Note that the time allocated to each presentation **includes** time for questions, and speakers should allocate as follows: 5 minutes for a 40 minute presentation, 4 minutes for a 25 or 30 minute presentation and 3 minutes for a 20 minute presentation.

Currency

The official currency in the UK is the pound sterling. Foreign currencies can be exchanged at many locations, there are many banks in town (10 minutes walk). There are also many ATMs where bank cards can be used. The exchange rates are (approximately): £1 = 1.45 Euros, 2.3 CHF, USD 1.9. Only £ sterling is accepted in shops, restaurants and pubs etc.

Beauty2006 sponsors

- University of Oxford Department of Physics
- The Institute of Physics
- The Particle Physics and Astronomy Research Council