

Welcome to

CKM

2010



THE UNIVERSITY OF
WARWICK



Science & Technology
Facilities Council

IOP

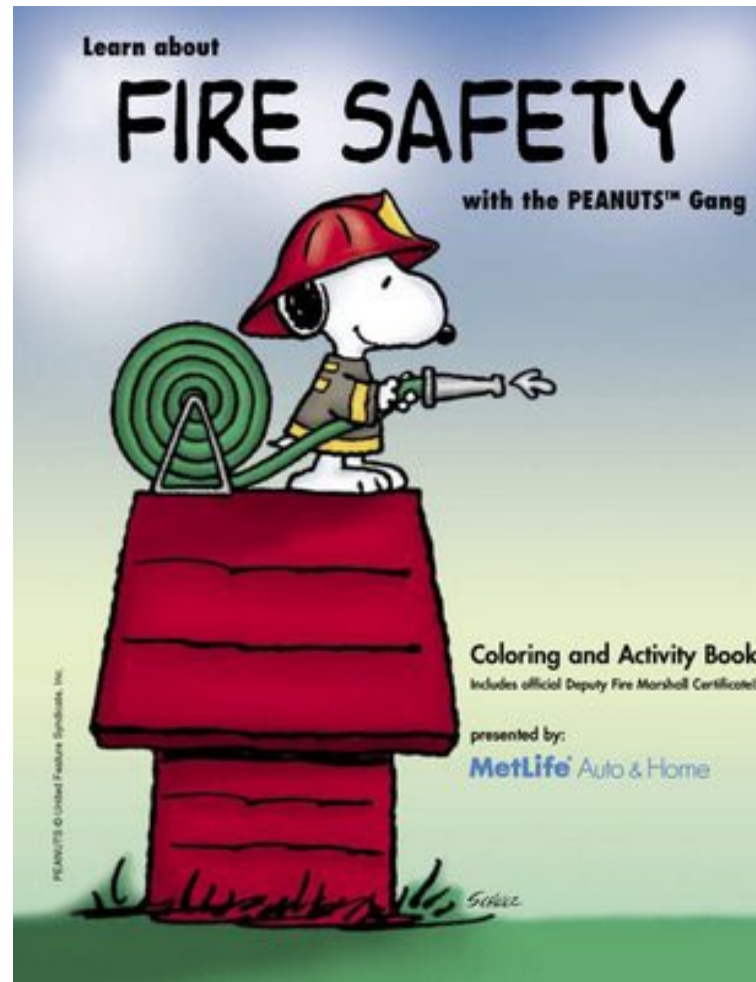


European
Research
Council

THE UNIVERSITY OF
WARWICK
Tim Gershon
Welcome to CKM2010

Fire safety announcement

CKM
2010



Goal of the workshop

The intended spirit of the workshop is to **generate new ideas** for analyses that can be carried out at current and future experiments.

This is a slight shift in emphasis from the previous edition, CKM2008, held in Rome, where documenting the achievements of the B factories was one of the priorities.

At CKM2010, **participants are encouraged to be forward looking**, while still taking the opportunity to learn lessons from past and current measurements.

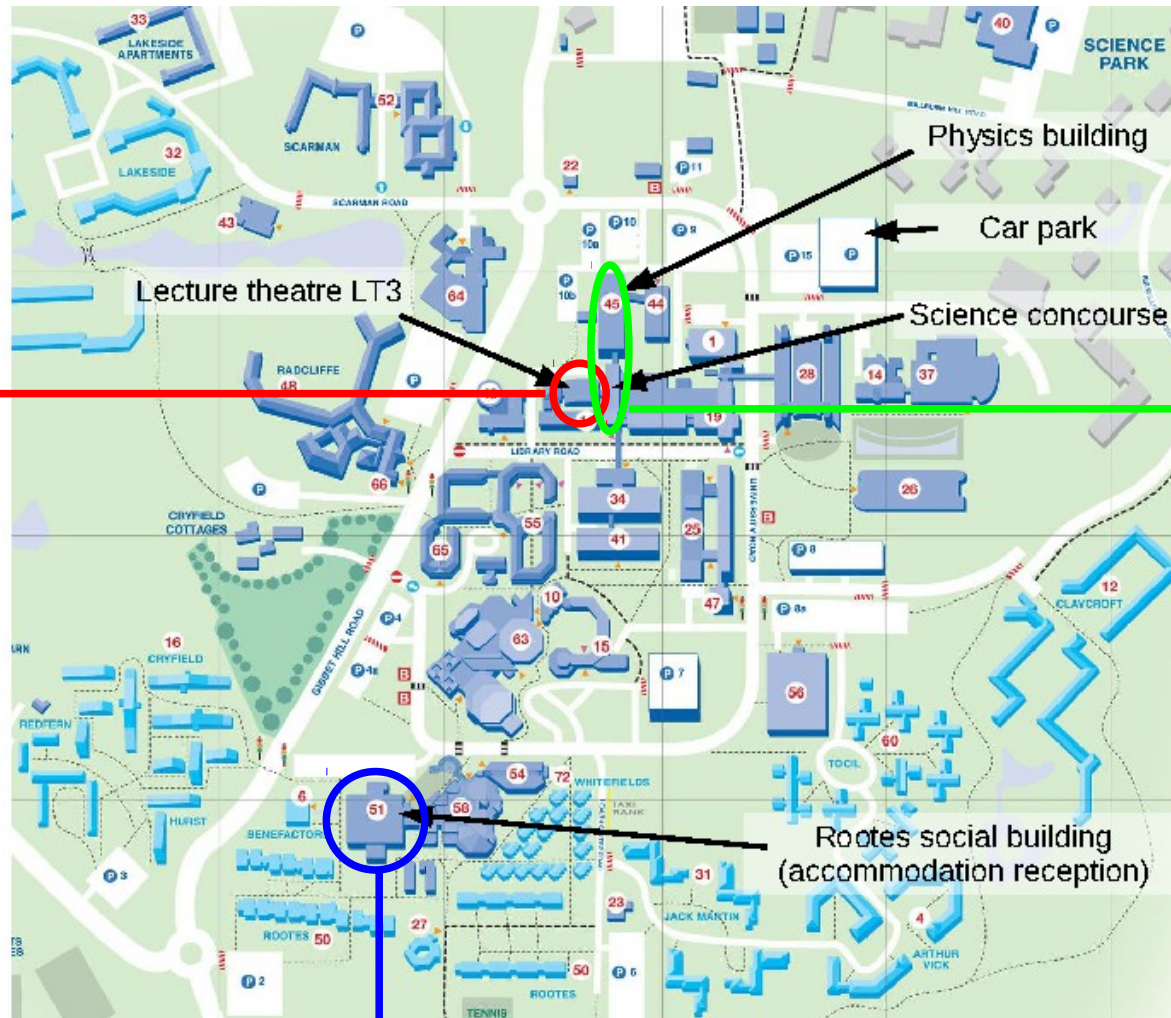
Schedule

CKM 2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGI
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30					
13.00		Lunch	Lunch	Lunch	Lunch
13.30					
14.00		Working groups WGI, WGIII, WGI	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner	
20.00			HFAG meeting	(until 23.00)	
20.30		Reception			

A busy week!

Locations



All plenary sessions here

All meals here (5 minute walk)

Working group sessions:
 B2.01, B2.02 & B2.04/5 (science concourse)
 Registration desk B2.03 (science concourse)
 Free workspace P5.20 (physics building, 5th floor)
 Further break-out rooms available if necessary

Schedule

CKM2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGI
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30					
13.00		Lunch	Lunch	Lunch	Lunch
13.30					
14.00		Working groups WGI, WGIII, WGI	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner (until 23.00)	
20.00			HFAG meeting		
20.30		Reception			

Antimatter: Fact, Fiction & Fancy
Prof. Frank Close, OBE
All welcome to attend

Schedule

CKM2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGI
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30		Lunch	Lunch	Lunch	Lunch
13.00					
13.30					
14.00		Working groups WGI, WGIII, WGI	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner (until 23.00)	
20.00			HFAG meeting		
20.30		Reception			

8.30 am
start!

Schedule

CKM 2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGV
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30					
13.00		Lunch	Lunch	Lunch	Lunch
13.30					
14.00		Working groups WGI, WGIII, WGV	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner	
20.00			HFAG meeting	(until 23.00)	
20.30		Reception			

Visit to Shakespeare's Birthplace,
 Stratford Upon Avon
 Buses depart 2pm from Library Road

Schedule

CKM 2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGI
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30		Lunch	Lunch	Lunch	Lunch
13.00					
13.30					
14.00		Working groups WGI, WGIII, WGI	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner (until 23.00)	
20.00		Reception	HFAG meeting		
20.30					

For HFAG members only
details by email

Schedule

CKM 2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGI
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30					
13.00		Lunch	Lunch	Lunch	Lunch
13.30					
14.00		Working groups WGI, WGIII, WGI	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner (until 23.00)	
20.00			HFAG meeting		
20.30		Reception			

Tribute to Nicola Cabibbo, RIP

Schedule

CKM2010 - University of Warwick

	Monday 6 September	Tuesday 7 September	Wednesday 8 September	Thursday 9 September	Friday 10 September
8.30			Working groups WGI, WGV	Working groups WGIII, WGIV, WGV	Working groups WGII, WGV
9.00		Plenary			
9.30					
10.00		Coffee	Coffee	Coffee	Coffee
10.30		Plenary	Working groups WGIII, WGV	Working groups WGI, WGII, WGV	Plenary Summaries
11.00					
11.30					
12.00					
12.30		Lunch	Lunch	Lunch	Lunch
13.00					
13.30					
14.00		Working groups WGI, WGIII, WGV	Excursion	Working groups WGIII, WGV	Plenary Summaries
14.30					
15.00					
15.30					
16.00	Tea	Tea		Tea (15.45-16.15)	Tea
16.30	Registration	Working groups WGII, WGIII, WGV		Plenary Tribute to Cabibbo	
17.00				Joint session (16.45-19.00)	
17.30					
18.00					
18.30	Dinner	Dinner	Dinner		
19.00					
19.30	Reception	Public lecture		Conference Dinner (until 23.00)	
20.00		Reception	HFAG meeting		
20.30					

Make your menu selection by end of lunch today!

Conference banquet
 St. Mary's Guildhall, Coventry
 Buses depart 7pm from Library Road

Please use INDICO & PDF



As you know, we are using INDICO for the CKM2010 workshop. The short URL is <http://indico.cern.ch/event/ckm2010>

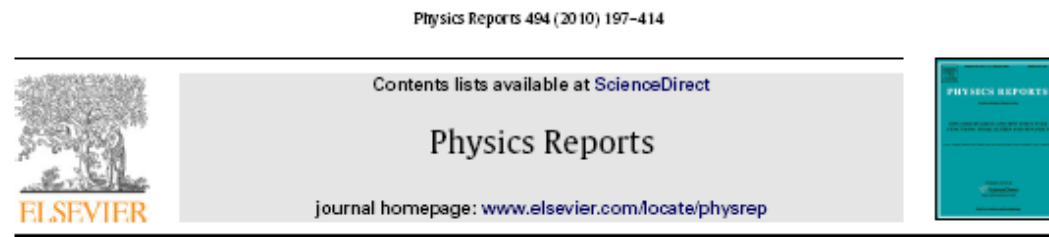
All speakers are urged to upload their slides to the INDICO system at latest the night before their talks. In case of any problems, please send your slides to your WG conveners, or contact any local organiser, or email me.

We strongly encourage the use of PDF for presentations. The machines that will be used for the presentations are running Windows, so powerpoint is possible, but we are all aware of potential compatibility issues. **The use of your own laptop is strongly discouraged.** If anyone insists on doing so, the time wasted switching machines will be deducted from your allocated speaking time. So please use INDICO and PDF!

Proceedings of CKM2008



- Published in Physics Reports 494 (2010) 197–414



Flavor physics in the quark sector

M. Antonelli¹, D.M. Asner², D. Bauer³, T. Becher⁴, M. Beneke⁵, A.J. Bevan⁶, M. Blanke^{7,8}, C. Bloise¹, M. Bona⁹, A. Bondar¹⁰, C. Bozzi¹¹, J. Brod¹², A.J. Buras⁷, N. Cabibbo^{13,14}, A. Carbone¹⁵, G. Cavoto¹³, V. Cirigliano¹⁶, M. Ciuchini¹⁷, J.P. Coleman¹⁸, D.P. Cronin-Hennessy¹⁹, J.P. Dalseno²⁰, C.H. Davies²¹, F. Di Lodovico⁶, J. Dingfelder²², Z. Dolezal²³, S. Donati^{24,25}, W. Dungel²⁶, G. Eigen²⁷, U. Egede³, R. Faccini^{13,14,*}, T. Feldmann⁷, F. Ferroni^{13,14}, J.M. Flynn^{8,1}, E. Franco¹³, M. Fujikawa²⁸, I.K. Furic^{7,9}, P. Gambino^{29,30}, E. Gardi³¹, T.J. Gershon³², S. Giagu^{13,14}, E. Golowich³³, T. Goto²⁰, C. Greub⁵⁶, C. Grojean⁹, D. Guadagnoli⁷, U.A. Haisch³⁴, R.F. Harr³⁵, A.H. Hoang⁸, T. Hurth^{9,18}, G. Isidori¹, D.E. Jaffe³⁶, A. Jüttner³⁷, S. Jäger⁷, A. Khodjamirian³⁸, P. Koppenburg³, R.V. Kowalewski³⁹, P. Krokovny²⁰, A.S. Kronfeld⁴, J. Laiho⁴⁰, G. Lanfranchi¹, T.E. Latham³², J. Libby⁴², A. Limosani⁴³, D. Lopes Pegna⁴⁴, C.D. Lu⁴⁵, V. Lubicz^{17,46}, E. Lunghi⁴, V.G. Lüth¹⁸, K. Maltman⁴⁷, W.J. Marciano³⁶, E.C. Martin⁴¹, G. Martinelli^{13,14}, F. Martinez-Vidal⁴⁸, A. Masiero^{49,50}, V. Mateu⁸, F. Mescia⁵¹, G. Mohanty^{32,52}, M. Moulson¹, M. Neubert⁵³, H. Neufeld⁵⁴, S. Nishida²⁰, N. Offen⁵⁵, M. Palutan¹, P. Paradisi⁷, Z. Parsa³⁶, E. Passemar⁵⁶, M. Patel⁹, B.D. Pecjak⁵⁸, A.A. Petrov³⁵, A. Pich⁴⁸, M. Pierini⁹, B. Plaster⁵⁹, A. Powell⁶⁰, S. Prell⁶⁰, J. Rademaker⁸⁰, M. Rescigno¹³, S. Ricciardi⁶¹, P. Robbe^{9,57}, E. Rodrigues²¹, M. Rotondo⁴⁹, R. Sacco⁶, C.J. Schilling⁶², O. Schneider⁶³, E.E. Scholz⁴, B.A. Schumm⁷⁸, C. Schwanda²⁶, A.J. Schwartz⁶⁴, B. Sciascia¹, J. Serrano⁵⁷, J. Shigemitsu⁶⁵, I.J. Shipsey⁷⁷, A. Sibidanov^{10,1}, L. Silvestrini¹³, F. Simonetto⁵⁰, S. Simula¹⁷, C. Smith^{56,66}, A. Soni³⁶, L. Sonnenschein^{9,67}, V. Sordini⁶⁸, M. Sozzi^{24,25}, T. Spadaro¹, P. Spradlin⁶⁹, A. Stocchi⁵⁷, N. Tantalò⁷⁰, C. Tarantino^{17,46}, A.V. Velinov⁴⁴, D. Tonelli⁴, I.S. Towner⁷¹, K. Trabelsi²⁰, P. Urquijo⁴³, R.S. Van de Water³⁶, R.J. Van Kooten⁷², J. Virto^{13,14}, G. Volpi^{24,25}, R. Wanke⁷³, S. Westhoff⁶⁶, G. Wilkinson⁶⁹, M. Wingate⁷⁴, Y. Xie³¹, J. Zupan^{9,75,76}

an excellent
reference for
CKM physics

Proceedings of CKM2010



- Proceedings will be published using eConf
 - can be considered an update to the detailed proceedings of CKM2008
 - similar model used successfully for CKM2004 – [eConf C0304052](#) – following the long write-up of CKM2002 (CERN Yellow Report [hep-ph/0304132](#))
- Details at

<http://www2.warwick.ac.uk/fac/sci/physics/research/epp/meetings/ckm2010/proceedings>

Proceedings of CKM2010

Please use the [LaTeX template](#) (see [pdf output](#)). You may modify it to use pdflatex if you prefer.

All talks

- ✦ Page limit of 1 page per five minutes plus 1 (e.g. 10 minutes ↔ 3 pages; 12 minutes ↔ 4 pages, etc.) One extra (bonus) page for plenary talks. 12 point font as specified in the template. (Note that the page limit is a maximum - you are welcome to write fewer pages.)
- ✦ After your contribution is approved (see below), upload to www.arXiv.org stating "Proceedings of [CKM2010](#), the 6th International Workshop on the CKM Unitarity Triangle, University of Warwick, UK, 6-10 September 2010" in the comments field. Then email ckm2010@warwick.ac.uk with the arXiv identifier (once known).
- ✦ Please also add a link to your proceedings next to the corresponding talk in the [INDICO](#) agenda.

Working group talks

- ✦ Prepare draft proceedings by 10 December 2010
- ✦ Send to your working group conveners informing them of any prior review (e.g. inside an experimental collaboration)
- ✦ They will make suggestions for revisions ("light touch" review)
- ✦ Aim to have all working group talks reviewed and submitted to arXiv by 14 January 2011

Joint session talks

- ✦ As above, substituting "joint session conveners" for "working group conveners"

Plenary talks

- ✦ Prepare draft proceedings by 14 January 2011
- ✦ Send to ckm2010@warwick.ac.uk; will be reviewed by members of the Programme Committee
- ✦ Aim to have all plenary talks reviewed and submitted to arXiv by 25 February 2011

Working group summaries

- ✦ Page limit - 10 pages (per working group). Co-authored by all conveners of each working group.
- ✦ Prepare draft summaries by 14 January 2011
- ✦ Send to ckm2010@warwick.ac.uk; will be reviewed by members of the Programme Committee
- ✦ Aim to have all summaries reviewed and submitted to arXiv by 25 February 2011

Welcome ... and enjoy

CKM

2010



THE UNIVERSITY OF
WARWICK



Science & Technology
Facilities Council

IOP



European
Research
Council

THE UNIVERSITY OF
WARWICK
Tim Gershon
Welcome to CKM2010