Conference Schedule

ANZIAM Mathsport 2016

Melbourne, 11-13 July, 2016

Edited by Ray Stefani

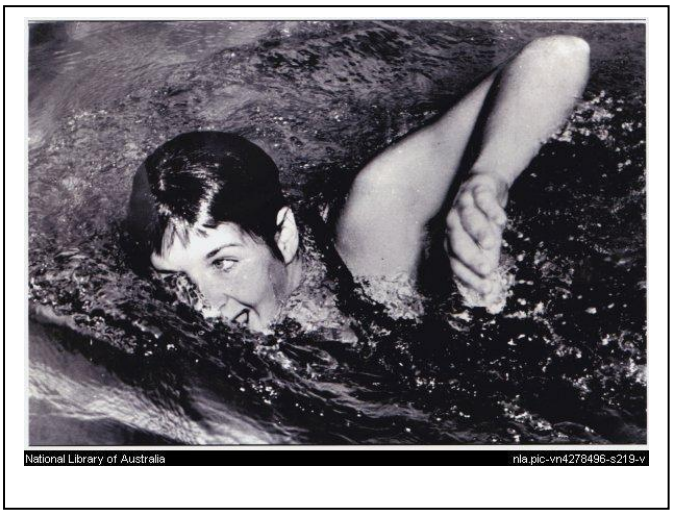
Don Bradman (top), Ron Clarke (below)



Betty Cuthbert (top), Dawn Fraser (below)







ANZIAM Mathsport 2016 Schedule

Victoria University City Conference Center, 300 Flinders Street

11 July, Day 1

830-9 Coffee and registration.

Bring your ticket provided by Trybooking.com. Pick up your identification lanyard and a Welcome Bag, including the Proceedings.

The page numbers below are from the Proceedings. Opening chair Ray Stefani.

	Topic	Authors	Title	Page
9-920	Welcome	Organizing Committee	OPENING REMARKS	
920-945	Guest	Brendan Poots	PRIOMHA:SPORTS AND EVENTS INVESTING	1
945-1030	Keynote	Gary McCoy	MEASURING SURF SAFETY	1
1030-11 Coffee Break				
Session 1-AFL, Chair Steve Clarke				
11-1125	AFL	Adrian Barake, Heather Mitchell, Con Stavros & Mark Stewart	DEVELOPING A CLASSIFICATION OF PLAYER ROLES IN AUSTRALIAN RULES FOOTBALL	3
1125-1150	AFL	Karl Jackson	MEASURING THE SIMILARITY BETWEEN PLAYERS IN AUSTRALIAN FOOTBALL	9
1150-1215	AFL	Darren O'Shaughnessy	IDENTIFICATION AND MEASUREMENT OF LUCK IN SPORT	21
1215-1240	AFL	Geoffrey N. Tuck	WHY DO COLLINGWOOD HAVE SO MANY FATHER-SON SELECTIONS? A DEMOGRAPHIC ANALYSIS OF THE AFL'S FATHER-SON RULE	33
1240-140 Lunch				
Session 2- Analytics, Chair Sam Robertson				
140-205	Gambling	Anthony Bedford	DETERMINATION OF INFLUENTIAL VARIATIONS FOR RATING AUSTRALASIAN GREYHOUNDS	110
205-230	Gambling	Stephen R Clarke	ADJUSTING TRUE ODDS TO ALLOW FOR VIGORISH	111
230-255	Gambling	Jonathan Sargent	TEAM RUNS PREDICTION VARIABILITY IN T20 CRICKET	121
255-320	Analytics-Sports Synthesis	Athol Whitten, Geoff Tuck, and Robert Macdonald	LAW AND ORDER FOR SPORTS LEAGUES: SIMULATING DRAFT PENALTIES AND LEAGUE DYNAMICS USING SPORTS SYNTHESIS	62
320-350 Coffee Break				
Session 3-Baseball and Football Codes History, Chair Adrian Schembri				
350-415	Baseball	Gerry Myerson	THE CONVEX HULL OF A BASEBALL PLAYER	69
415-440	Football Codes-Evolution	Ray Stefani	THE INTERRELATED EVOLUTION OF SEVEN FOOTBALL CODES: A TALE OF THE ROUGE, THE RUBBER BLADDER, WEBB ELLIS AND TOM WILLS	104

We are due at the National Sports Museum at the MCG by 515. Please enter at Gate 3. We must leave by 630.

12 July, Day 2 830-9 Coffee Opening chair Anthony Bedford				
	Topic	Authors	Title	Page
9-945	Keynote	Ken Quarrie	METHODS FOR POVIDING SAFE PLAY IN RUGBY	1
945-1010	Analytics-Head Injuries	Adrian Schembri	APPLICATIONS OF COMPUTERISED COGNITIVE TESTING IN SPORT AND POTENTIAL IMPLICATIONS FOR CONCUSSION TESTING AND PLAYER AND COACHING DECISIONS	56
1010-1035 Coffee Break				
Session 4- Olympics and Rugby, Chair Dion O'Neale				
1035-11	Olympics-Ancient Technology	Ray Stefani	ANCIENT OLYMPICS: EVENTS, SUPERSTARS, CHEATING, TECHNOLOGY AND WOMEN'S ROLE	140
11-1125	Rugby	Makoto Kiuchi, Nobuyoshi Hirotsu	ANALYSIS OF GAME STATISTICS ON TEAMS AND PLAYERS IN JAPAN RUGBY TOP LEAGUE	145
1125-1150	Rugby	Elliot Tonkes	ON THE DISTRIBUTION OF WINNING MARGINS IN RUGBY GAMES	150
1150-1215	Rugby	William Undy, Dion R.J. O'Neale, Ken Quarrie	FORECASTING IN RUGBY UNION: A COMPARISON OF METHODS	156
1215-115 Lunch				
Session 5- AFL and Analyitcs, Chair Gary McCoy				
115-140	Gambling	Darren O'Shaughnessy	IN-PLAY BETTING AS DYNAMIC PORTFOLIO RISK MANAGEMENT	116
140-205	AFL	Bartholomew Spencer	CLUSTERING TEAM PROFILES IN THE AFL USING PERFORMANCE INDICATORS	27
205-230	Analytics-Team Quality vs. Demand	Paul J. Bracewell, Evan Blackie, Peter Blain , Chris Boys	UNDERSTANDING THE IMPACT OF DEMAND FOR TALENT ON THE OBSERVABLE PERFORMANCE OF INDIVIDUALS	39
230-255	Analytics-Team Ratings	Clint A. Jowett, Samuel J. Rooney, Paul J. Bracewell (Rooney-Speaker)	TEAM PERFORMANCE AND CONFERENCE CALIBRATION	50
255-320 Coffee Break				
Session 6- Tennis, Golf and AFL, Chair Darren O'Shaugnessy				
320-345	Tennis	Tristan Barnett, Alan Brown	THE MATHEMATICS OF TENNIS	163
345-410	Tennis	Stephanie Kovalchik	STATISTICAL MODELLING TOOLS FOR THE COACHING OF ELITE TENNIS PERFORMANCE	164
410-435	Golf	Bradley O'Bree, Ian Grundy	PLAYER RATINGS IN PGA GOLF	122
435-500	AFL	Casey Josman, Ritu Gupta, and Sam Robertson	FIXTURE DIFFICULTY AND TEAM PERFORMANCE MODELS FOR USE IN THE AUSTRALIAN FOOTBALL LEAGUE	15
Our dinner venue is just a short distance away on our side of Flinders at the Young and Jackson Pub, Flinders and Swanston.				

13 July, Day 3 830-9 Coffee Opening Chair Sam Robertson				
	Topic	Authors	Title	Page
9-925	Guest	Western Bulldogs	COACH AND PLAYERS MEET US	1
925-1010	Keynote	Sam Robertson	A STATISTICAL APPROACH TO ENHANCING PLAYER SKILL IN AUSTRALIAN RULES FOOTBALL: APPLICATION TO TEAM SPORT	1.2
1010-1035 Coffee Break				
Session 7- Cricket, Chair Paul Bracewell				
1035-11	Cricket	Paul J. Bracewell, Martin Coomes , James D. Nash , Denny H. Meyer , Samuel J. Rooney (Rooney-Speaker)	RATING THE ATTACKING PERFORMANCE OF A NON-WICKET TAKING BOWLER IN LIMITED OVERS CRICKET	74
11-1125	Cricket	Patrick Brown, Ankit K. Patel, Paul J. Bracewell	REAL TIME PREDICTION OF OPENING BATSMAN DISMISSAL IN LIMITED OVERS CRICKET	80
1125-1150	Cricket	Bernard Kachoyan and Marc West	CRICKET AS LIFE AND DEATH	85
1150-1215	Cricket	Ankit K. Patel, Paul J. Bracewell, Samuel J. Rooney	TEAM RATING OPTIMISATION FOR T20 CRICKET	91
1215-110 Lunch				
Session 8- Analysis of Four Sports, Chair Marc West				
110-135	Cricket	Steven E. Stern	THE DUCKWORTH-LEWIS-STERN METHOD: RAIN RULES AND MODERN SCORING IN ONE-DAY CRICKET	97
135-2	Badminton	Minh Huynh and Kelly Marshall	TRAINING BADMINTON PLAYERS AND KNOWING WHEN TO THROW IN THE TAU	63
2-225	NBA Basketball	Michael de Lorenzo, Ian Grundy	USING A BROWNIAN MOTION TO CALCULATE THE IMPORTANCE OF POINTS IN BASKETBALL	134
225-250	Golf	Bradley O'Bree, Ian Grundy	THE INFLUENCE OF PLAYER ABILITY AND POSITION ON TOURNAMENT SUCCESS IN PGA GOLF	128
250-315 Coffee Break				
Session 9- Cycling, Soccer and Analytics, Chair Ray Stefani				
315-340	Cycling	Loic Devoir, Bahadorezza Ofoghi, Dan Dwyer, Clare MacMahon and John Zeleznikow	MODELLING THE THIRD VERSION OF THE CYCLING OMNIUM	98
340-405	Soccer	Michael de Lorenzo , Bradley O'Bree , Ian Grundy	SIMPLIFYING PROBABILISTIC MATCH IMPORTANCE CALCULATION IN FOOTBALL	157
405-430	Analytics-Wearable Technology	Doug Hunt, Dave Parry	THE ROLE OF CLASSIFICATION IN THE DEVELOPMENT OF WEARABLE COACHING DEVICES	45
430-500: Business Meeting: Elect a new Executive Committee and make plans for the future, including Mathsport 2018				

Mathsport Activity

After our first day of talks on 11 July, your conference fee will include a visit to the National Sports Museum at the MCG. That museum has the best coverage of sports that you will experience anywhere. It will seem that Shane Warne is there to reminisce on his career. You can try your hand (or foot) at shooting a netball goal, kicking for a soccer goal and experiencing a cricket crease.

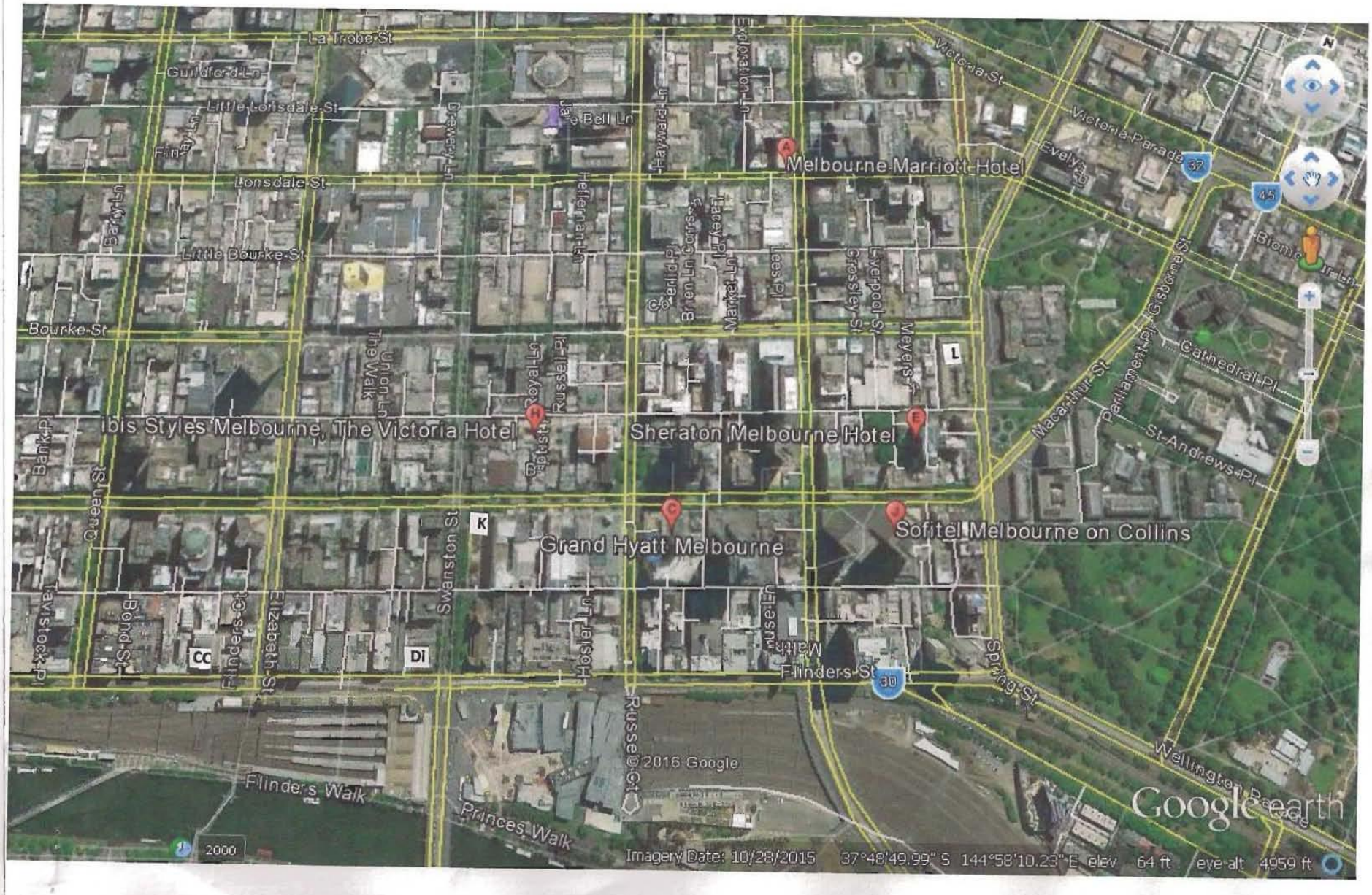
Conference Dinner

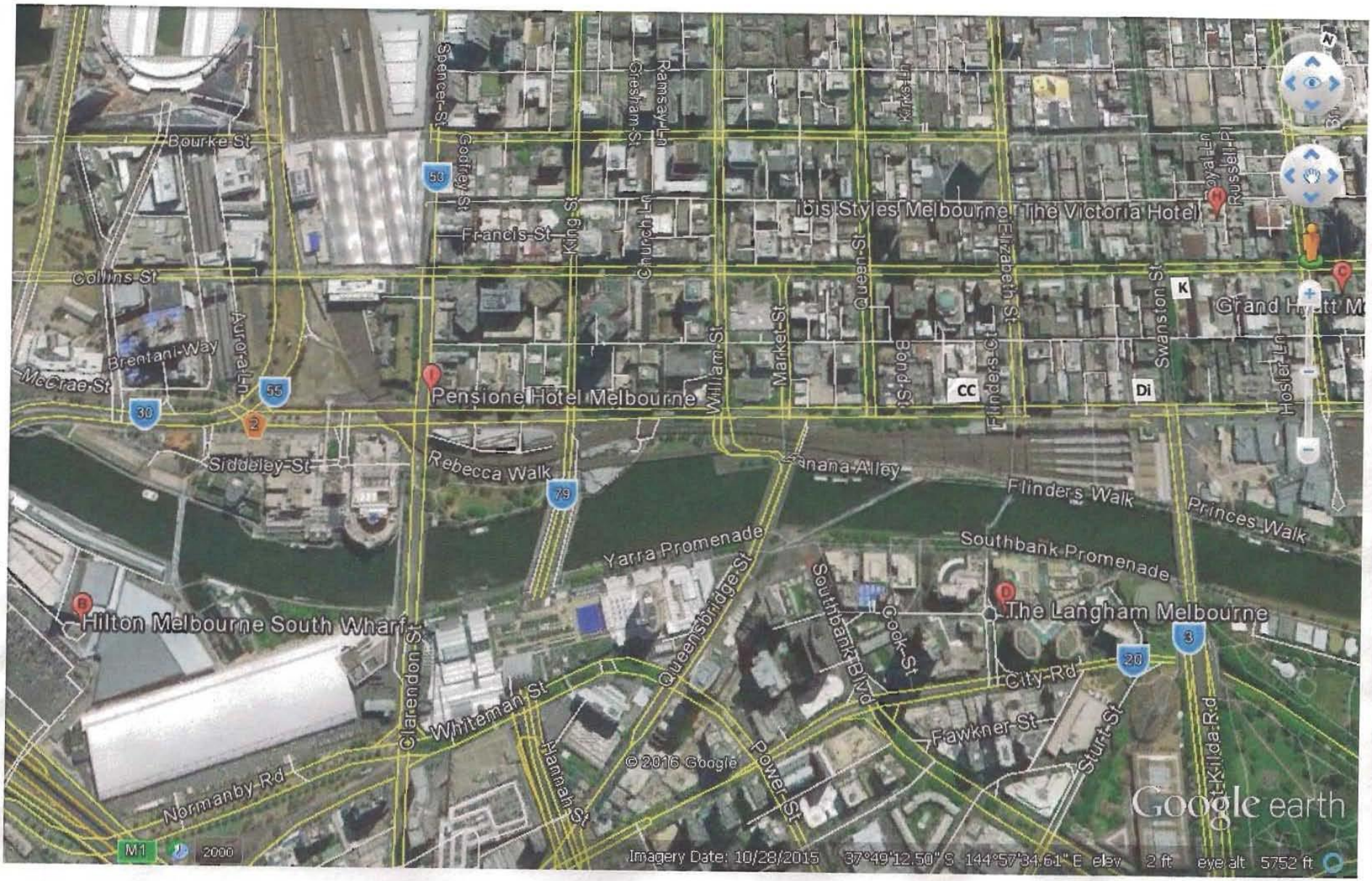
Your fee will include a conference dinner on 12 July, at the nearby Young and Jackson pub at Flinders and Swanston. See maps. The City Conference Center is denoted by "CC" on the maps below while the conference dinner location in denoted by "Di".

Hotels

There are many hotels in close proximity to the conference venue. The following list shows 12 hotels which are marked on the maps below.

A. Melbourne Marriott Hotel
B. Hilton Melbourne South Wharf
C. Grand Hyatt Melbourne
D. The Langham Melbourne
E. Radisson on Flagstaff Gardens Melbourne
F. Sheraton Melbourne Hotel
G. Best Western Princes Park (not on the maps, some distance north)
H. Ibis Styles Melbourne, The Victoria Hotel
I. Pensione Hotel Melbourne
J. Sofitel Melbourne on Collins
K. The Westin Melbourne
L. The Hotel Windsor Melbourne


La Trobe St
Guildford Ln
Little Lonsdale St
Finlay Ln
Brewery Ln
Jane Bell Ln
Hawkins Ln
Spring Ct
Victoria St
Victoria Parade
Evelyn Pl
Melbourne Marriott Hotel
Lonsdale St
Barry Ln
Little Bourke St
Heffernan Ln
Goldie Pl
O'Brien Ln
Corrs Ln
Market Ln
Lees Pl
Crossley St
Liverpool St
Meyers Pl
Bourke St
The Walk
Union Ln
Royal Ln
Russell Pl
Bank Pl
ibis Styles Melbourne, The Victoria Hotel
Sheraton Melbourne Hotel
Macarthur St
Parliament Pl
Gisborne St
Cathedral Pl
St Andrews Pl
Queen St
Swanston St
Grand Hyatt Melbourne
Sofitel Melbourne on Collins
Lt Collins St
Flinders St
Spring St
Flinders Walk
Princes Walk
Russell Ct
Wellington Parade
2016 Google
Google earth
2000
Imagery Date: 10/28/2015 37°48'49.99" S 144°58'10.23" E elev 64 ft eye alt 4959 ft


Bourke St
Spencer St
Godfrey St
Gisborne St
Ramsay Ln
King St
Church Ln
Francis St
Collins St
Aurora Ln
Brentani Way
McCrae St
Siddeley St
Rebecca Walk
William St
Market St
Queen St
Bond St
Elizabeth St
Flinders Ct
Swanston St
Russell Pl
Royal Ln
Hosier Ln
ibis Styles Melbourne The Victoria Hotel
Pensione Hotel Melbourne
Grand Hyatt M
Flinders Walk
Princes Walk
Southbank Promenade
Yarra Promenade
Queensbridge St
Southbank Blvd
Cook St
City Rd
Fawkner St
Sturt St
St Kilda Rd
Power St
Hannah St
Whiteman St
Clarendon St
Normanby Rd
Hilton Melbourne South Wharf
The Langham Melbourne
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Imagery Date: 10/28/2015 37°49'12.50" S 144°57'34.61" E elev 2 ft eye alt 5752 ft