MATH Sport 2026

18TH AUSTRALASIAN CONFERENCE ON MATHEMATICS AND COMPUTERS IN SPORT



CONFERENCE SCHEDULE
& FEATURED SPEAKER BIOGRAPHIES

1-3 JULY 2026 | GOLD COAST, QUEENSLAND

Three days of mathematics, analytics, computing and performance insight across elite and community sport.

Hosted by UniSC and Bond University

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MATHSport 2026

18th Australasian Conference on Mathematics and Computers in Sport | 1-3 July 2026

FEATURED SPEAKER BIOGRAPHIES

Day One keynote and Day Two Women in Maths & Computers in Sport Forum

Featured sessions connect mathematical and analytical insight with lived experience at the highest levels of sport.



David Kendix

ICC statistician consultant; President, Association of Cricket Statisticians and Historians

Day One Keynote: *Turning theory into practice: three models that changed cricket*

David Kendix is an internationally recognised cricket statistician and a Fellow of the Institute of Actuaries. As statistician to the International Cricket Council and a long-serving member of its Cricket Committee, he identifies statistical trends, contributes to playing regulations and translates quantitative ideas into systems used across the international game. He peer-reviewed the Duckworth-Lewis-Stern method before its adoption and designed the ICC team rankings, which now cover more than 100 men's and women's teams. David has also served as an expert witness in a match-fixing trial, scored more than 100 internationals including 50 Tests, and held board and treasury roles at Middlesex County Cricket Club. Beyond cricket, he designed and maintains World Netball's team rankings and helped shape its world championship tournament structure.

CORE EXPERTISE	CRICKET IMPACT	LEADERSHIP
Model risk & rankings	ICC systems since 2002	ACS President since 2017



Lilliana Prucha

Australian Steelers wheelchair rugby athlete; Bond University data analytics student

Day Two Forum: *Her Game, Her Numbers: Tales from Elite Sport*

Lilliana Prucha is a rising member of the Australian Steelers wheelchair rugby program and one of a new generation of athletes combining elite performance with data-driven thinking. She made her senior Steelers debut at the 2025 World Challenge and was selected for Australia's 2026 Canada Cup campaign. After relocating from Perth to the Gold Coast, Lilliana joined Queensland's high-performance training environment and has continued to develop her tactical awareness, decision-making and defensive impact. She is the first wheelchair rugby athlete to receive Bond University's John Eales Rugby Excellence Scholarship and is completing a Bachelor of Data Analytics with a minor in Sports Analysis. Away from competition, she coaches junior wheelchair rugby and is interested in how technology and analytics can improve athlete performance and understanding.

TEAM	CLASSIFICATION	STUDY
Australian Steelers	2.0F	Data Analytics + Sport Analysis

Bio sources: MathSport Asia / ICC / ACS; Paralympics Australia and Bond University. Current to June 2026.

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FEATURED SPEAKER BIOGRAPHIES

Her Game, Her Numbers: Tales from Elite Sport | Thursday 2 July, 9:30 am

Featured sessions connect mathematical and analytical insight with lived experience at the highest levels of sport.



Zoe Hanna

Queensland Reds back-rower; Bond University Doctor of Physiotherapy student

Day Two Forum: *Her Game, Her Numbers: Tales from Elite Sport*

Zoe Hanna is a dynamic back-rower with the Queensland Reds and a key figure in Bond University's highly successful women's rugby program. In 2022 she became the first female recipient of Bond's prestigious John Eales Rugby Excellence Scholarship, helping open a new pathway for women in the sport. Zoe has been central to the Bull Sharks' premiership success and entered her second Super Rugby Women's season with the Reds in 2026 after returning from shoulder surgery. Her performances have also earned selection in Wallaroos training environments and Australia A representation. Alongside rugby, Zoe completed a Bachelor of Exercise and Sports Medicine and is now studying a Doctor of Physiotherapy, giving her a valuable athlete perspective on preparation, recovery, injury management and the practical use of performance information.

POSITION	TEAM	STUDY
Flanker / No. 8	Queensland Reds	Doctor of Physiotherapy



Laura Langman ONZM

Silver Ferns great former Sunshine Coast Lightning and New Zealand captain

Day Two Forum: *Her Game, Her Numbers: Tales from Elite Sport*

Laura Langman ONZM is one of the most influential and respected midcourters in world netball. Across a remarkable international career she earned 165 Test caps - the most in Silver Ferns history - and played centre, wing defence and wing attack with relentless work rate, speed and tactical intelligence. After returning to international netball in 2018, Laura captained New Zealand to the 2019 Netball World Cup title in Liverpool. Her career also included Commonwealth Games gold medals, domestic championships in New Zealand and Australia, and a leading role with the Sunshine Coast Lightning. Renowned for her professionalism, durability and ability to influence both attack and defence, Laura brings a rare athlete's view of how physical data, tactical analysis, communication and trusted analyst relationships can support sustained elite performance.

SILVER FERNS	MAJOR TITLE	HONOUR
165 International Test caps	2019 World Cup champion	ONZM for services to netball

Bio sources: Bond University and Queensland Reds; Silver Ferns and New Zealand Olympic Team. Current to June 2026.

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DAY ONE - WEDNESDAY 1 JULY 2026

Sofitel Gold Coast Broadbeach - Lobby and Sorrento Room, Level 3

25-minute talks: 20 minutes + 5 minutes Q&A. 15-minute talks: 12 minutes + 3 minutes Q&A. ★ Powerplay contribution.

09:00-13:35

TIME	MIN	AREA / PRESENTER	SESSION TITLE- Chair Steve Stern
09:00	20	**Lobby / Sorrento Room**	Registration
09:20	10	**Welcome** Steve Stern + Ant Bedford	Welcome, tipping competition, housekeeping, next conference and dinner sign-up
09:30	55	**Cricket 1** David Kendix	**Turning theory into practice: three models that changed cricket**
10:25	25	**Cricket 2** Marc West	Connecting the dots: a mathematical analysis of Bazball
10:50	20	**MORNING TEA**	
11:10	25	**Cricket 3** Mingzhong Wang	BPARC: Bilaterally player-aware resource compensation for rain-interrupted limited-overs cricket matches
11:35	25	**Racquet Sports** Yuki Takasaki	Massey ratings for match outcome prediction in table tennis: evidence of greater stability than the ITTF World Ranking
12:00	25	**Racquet Sports** Ken Louie	Scheduling interclub squash leagues in New Zealand to improve player engagement
12:25	45	**LUNCH – Session Chair Darren O'Shaughnessy**	
13:10	25	**AFL** Hamish Murray	List management optimisation in the Australian Football League
13:35	25	**AFL** Steven Azzopardi	Comparative analysis of defensive pressure in men's and women's Australian football

14:00 ONWARDS

TIME	MIN	AREA / PRESENTER	SESSION TITLE
14:00	25	**AFL** Dave Matteo	Approaches to measuring and modelling player development in Australian rules football
14:25	25	**AFL** Paul Hardwicke + Ant Bedford	Save our scores: offsetting AFL strength-of-schedule imbalance with points recalibration
14:50	20	**AFTERNOON TEA – POWERPLAY – Chair Ant Bedford**	
15:10	25	**Hydration Sensing** Alex Lap Cheung Liu	Towards hydration sensing: a dimension-reduction framework for impedance spectroscopy data
15:35	25	**Swimming** Mackenzie Parker	A data-informed framework to classify and analyse pacing profiles in competitive swimming
16:00	25	**Payments** Mana Mirzaei	Mathematical modeling of adaptive payment rail switching in high-demand sports events
16:25	25 ★	**Invasion / Rugby / Quantum** Sam Forbes	Regrets, I've had a few...
16:50		**Suggested dining at The Star: a table will be booked for 20 guests at Uncle Su (Asian). Pay as you go; confirm at registration.**	

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DAY TWO – LADIES DAY - THURSDAY 2 JULY 2026

Sofitel Gold Coast Broadbeach - Sorrento Room, Level 3

25-minute talks: 20 minutes + 5 minutes Q&A. 15-minute talks: 12 minutes + 3 minutes Q&A. ★ Powerplay contribution.

09:20-13:10

TIME	MIN	AREA / PRESENTER	SESSION TITLE- Erica Mealy
09:20	10	**Welcome** Steve Stern + Ant Bedford + Erica Mealy	Welcome
09:30	55	**Women in Maths & Computers in Sport Forum** Lilliana Prucha; Zoe Hanna; Laura Langman ONZM	**Her Game, Her Numbers: Tales from Elite Sport**
10:25	25	**Athletics Field Events** Tara Lind	Exploratory analysis and modelling of multi-trial field event performance
10:50	20	**MORNING TEA**	
11:10	25	**Athletes with Disabilities** Erica Mealy	Towards quantified athlete safety in non-linear wheelchair sports: a digital health and IMU-based load monitoring framework
11:35	25	**Athletes with Disabilities** Ishara Duwalagek	Spatial analysis of disability sport participation inequities in Queensland
12:00	25	**Athletes with Disabilities** Mark Connick	A standardised participation ratio for evaluating sport and physical activity participation in people with disability
12:25	45	**LUNCH - followed by POWERPLAY sessions – Harish Aaqula**	
13:10	15 ★	**Athletes with Disabilities** Dan Van Den Hoek	Artificial intelligence-assisted adjudication in powerlifting and para-powerlifting: a pilot framework for rule-based bench press decision support

13:25 ONWARDS

TIME	MIN	AREA / PRESENTER	SESSION TITLE
13:25	25	**Computers in Sport** David Ceddia	Mathematical modelling and optimisation of training load profiles to maximise performance
13:50	25 ★	**Community Sport** Lance Peatey	Survival Analysis, But Not as We Know It
14:15	25	**Football** Junyuan Lin	Predictive models for sports readiness: a data-driven analysis of collegiate female soccer players
14:40	25	**Football** Pooja Sengupta	Player performance pointer: a data analytics perspective into footballer performance measurement
15:05	20	**AFTERNOON TEA - with POWERPLAY – Chair Shazi Saremi**	
15:25	25	**Computers in Sport** Huang-Chia Shih	Low-cost vision-based yoga pose assessment and angle-aware feedback system for exercise analysis
15:50	25 ★	**Computers in Sport** Ben McGahan	Reading Rugby Without Ball Tracking
16:15	25	**Computers in Sport** Ant Bedford	Computer vision for horse racing analysis and adjudication
16:40	25	**Computers in Sport** Mostafa Kamalpour	Mapping artificial intelligence and machine learning research in sports injury prediction: a bibliometric analysis
17:30		**Suggested gathering at the Sports Bar @ The Star**	

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DAY THREE - FRIDAY 3 JULY 2026

Morning at Sofitel | Afternoon visit to Bond University Sports Precinct

25-minute talks: 20 minutes + 5 minutes Q&A. 15-minute talks: 12 minutes + 3 minutes Q&A. ★ Powerplay contribution.

09:00-11:10

TIME	MIN	AREA / PRESENTER	SESSION TITLE – Steven Azzopardi
09:00	30	**AGM and Committee**	Welcome
09:30	25	**Running** William Sutton	Pace profiling in middle-distance running: using functional data and clustering to understand how races unfold
09:55	25	**Athletes** Tim Heazlewood	The use of mathematical models to predict athletic performance in men's and women's 100m, 200m, 400m, long jump, high jump, shot put and discus at the 2026 Glasgow Commonwealth Games
10:20	25	**Athletes** Madison Stibbe	Bayesian network inference with uncertainty: modelling athlete progression
10:45	25	**MORNING TEA – POWERPLAY – Chair Marc West**	
11:10	25	**Concussion** Hanem Ellethy	A decade of deep learning in sports-related concussion diagnosis: a review of neuroimaging approaches (2016-2026)

11:35 ONWARDS

TIME	MIN	AREA / PRESENTER	SESSION TITLE
11:35	15 ★	**Mental Health** Rania Shibl & Shazi Saremi	Quantitative modeling of mental health improvement through aerial sports participation and nutrition awareness
11:50	15 ★	**Golf** Ant Bedford	Measuring excitement in the closing stages of the Masters golf
12:05	15 ★	**Powerplay** TBC	Quiz + Tipping
12:20	15 ★	**Yoga** Tristan Barnett	Could Roger Federer have won more Grand Slams by following a yoga process?
12:35	40	**WORKING LUNCH AGM - AGM and Committee – Tim H**	
13:15	45	**Travel to Bond**	Travel to Bond University - visit Sports Precinct. Car pool; 2:00 pm arrival.
14:00	120	**Bond University**	Visit the Bond University Sports Precinct
16:00		**Leave Bond - Conference ends**	

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