

ISBS 2018 Auckland Conference

Opening Ceremony Order of Proceedings

Monday 10th September 2018

Delegates will enter the auditorium – 2:40-2:50 pm

Delegates will enter the auditorium.

Student travel grant awardees will gather at the NZ Silver fern flag – 2:40 pm

Student travel grant awardees will gather at the NZ Silver fern flag and be in seating order for entrance into the auditorium at 2:50, and receipt of travel award and certificate during the ceremony.



Dignitaries will gather at the NZ flag – 2:40 pm

Dignitaries will gather at the NZ flag and be in seating order for entrance into the auditorium and speeches during the ceremony.



Procession commencement – 3:00 pm

The Master of Ceremony Professor Patria Hume will ask delegates to stand at the commencement of the opening for the procession of the dignitaries to the auditorium.



Karanga

Dignitaries will be called into the auditorium via the Māori traditional karanga, and will proceed to their seats.

Mihi Whakatau – 3:05 pm



The first formal address will be given by kaihāpai Dr Valance Smith and commence with a Karakia (Blessing) and Mihi Whakatau welcoming dignitaries, guests and delegates to the ISBS 2018 Conference.

Valance lectures at AUT, teaching Te Reo Māori (the Māori language), Māori performing arts and composition, and provides cultural support to the University. Valance gained a Master of Arts in the Department of Māori Studies, University of Auckland (2003) and then completed a PhD in Māori Development at AUT (2014). His doctoral thesis focused on contemporary Māori music and its potential in promoting Te Reo Māori. Valance is actively engaged in Māori performance art, the composition and performance of contemporary Māori music and Māori language revitalisation. Valance is an investigator for a National Science Challenge project, investigating mobilisation of traditional Māori knowledge in ecology and cultural farming practices.

We sing 'e toru ngā mea' for Valance's waiata:

E toru ngā mea
Ngā mea nui
E kī ana
Ngā tīpuna
Ko te pono
Ko te tika
Ko te mea nui
Ko te aroha

AUT Vice-Chancellor's Address – 3:10 pm



Derek McCormack, the Vice-Chancellor, will address the assembled company and welcome them to AUT for the conference hosted in partnership by AUT, AUTM, HPSNZ, ATEED and ISBS.

Derek has been the AUT Vice-Chancellor since 2004. He is the academic and administrative head of AUT as New Zealand's most contemporary, fastest changing, and second largest university. Derek was instrumental in supporting the vision of SPRINZ and development of the AUT Millennium Precinct where the applied programme will be held. Derek is the Chair of the AUT Millennium Board.



The kapa haka group will perform 'taku manu tāwhiowhio' for the Vice Chancellor's waiata:

Kōrihi atu taku manu tāwhiowhio
Ki te tini, ki te mano o Hākuturi
Aku manu honenga
Aku manu whitirua
Ki te kai
Ki te inu i ngā wai o Horotiu
Whakatau iho rā
Ki te roro o te whare
Nanao atu ai
Ki ngā here Pūrengi
Rangitāmiro ai te kōwhao o te ngira
Ka takakawehia te ara poutama
Pupū ake ake ngā wai o Waitematā
E tū atu ai Te Ipu a Mataaoho
Tū mai Rangipuke
Ka karanga ā-Hape
Whakawhiti atu ki te Rerenga Oraiti
Te Whatu tauranga kāwau tikitiki
Pou herenga waka
Ko te reo pōwhiri!
Ko te reo karanga!
Ko te mātāpuna o te kete Aronui!
TAU, TAU, TAU ANA E!

My navigation bird cries out
To the multitudes, To the forest guardians
To the esteemed
To the gathered
Come and feast
Quench thy thirst in the waters of Horotiu
Come, rest
On the balcony of my meeting house
Grasp tightly
To the lashings
Where the common thread is found
Navigate the trails of learning
Waitematā continues to surge ahead
Mt Eden stands at guard
Albert Park our fortress of contemplation
Hape calls out
To those who reside with us no more
There lies the anchor
Where we are indeed united
Tis a sign of salutation!
Tis a call of welcome!
Aronui, the fountain of knowledge
Come, rest.

**Explanation for the creation of this waiata is at the end of this proceeding document.*



The conference logo was designed by Professor Patria Hume and Dr Valance Smith based on:

- the adaption of the AUT SPRINZ logo (taking steps to research-education-service excellence – sprinting up the NZ fern)
- the goals of conference reflected in Māori culture “Te hōkai tapuwae” means “The breadth of stride”

Within the Māori Karakia (prayer) ‘Tenei au tenei au’ is the line ‘te hōkai nei i o taku tapuwae’ – The breadth of stride as Tane ascends to the heavens to retrieve the three baskets of knowledge. This embodies human movement and the pursuit of knowledge – the goals of ISBS.

AUT Faculty of Health and Environmental Sciences Dean



The AUT Faculty of Health and Environmental Sciences Dean and Pro-Vice Chancellor, in absentia, welcomes the assembled company and encourages them to experience the research-education-service focus at AUT.

Professor Max Abbott CNZM is Professor of Psychology and Public Health, Dean of the Faculty of Health and Environmental Sciences, also Pro Vice-Chancellor (North Campus), and Co-director of the National Institute for Public Health and Mental Health Research. Max was the founding National Director of the Mental Health Foundation of New Zealand, a position held for ten years. During his presidency of the World Federation for Mental Health (1991 – 1993) he co-chaired the first World Mental Health Day with the WHO Director General.

AUTM Chief Executive & NZOC President's Address – 3:15 pm



Mike Stanley, the AUT Millennium (AUTM) Chief Executive & New Zealand Olympic Committee (NZOC) President, will address the assembled company and welcome them to AUTM for the conference applied programme.

Mike has been Chief Executive of AUTM since 2003. He is President/Chairman of the NZOC and has served on the board of the NZOC since 2004. Mike is a board member of High Performance Sport New Zealand. Mike has been a competitor, coach, commentator and an administrator for rowing. He became a New Zealand rowing representative in 1976, and was a member of the NZ rowing eight which won back-to-back world championship in 1982 and 1983 and finished fourth in that event at the 1984 Los Angeles Olympic Games. Mike was inducted into the Sports Hall of Fame in 1995 and shared the NZ Sportsman of the Year trophy with the world champion crew of 1982. From 1994 to 2003, Mike was Chief Executive of Rowing New Zealand.

HPSNZ Chief Executive Address – 3:20 pm



Michael Scott, the High Performance Sport New Zealand (HPSNZ) Chief Executive, will address the assembled company and outline the importance of biomechanics and integrated sport science in supporting high performance athletes.

Michael joined HPSNZ as Chief Executive in January 2018. With over 20 years' experience in high performance at both a system and sport level, Michael was most recently Chief Executive of Rowing Australia having previously held a number of leadership roles internationally and across the system including Performance Director at Swimming Australia, National Performance Director at British Swimming as well as Chief Executive of the 2007 World Swimming Championships Corporation. At a system leadership level, Michael was the sixth Director of the Australian Institute of Sport having previously been appointed the inaugural Director of the New South Wales Institute of Sport. Michael holds a Master of Science in Physical Education from Eastern Kentucky University.

ATEED General Manager Address – 3:25 pm



Pam Ford, General Manager Economic Development, Auckland Tourism, Events Economic Development (ATEED), will address the assembled company and outline the importance of the conference to Auckland and New Zealand. Thanks will be given to the industry partners for their active contribution to the conference.

ATEED is the region's economic growth agency and an Auckland Council-controlled organisation. ATEED's programmes help make Auckland a desirable place to live, work, visit, invest and do business. Pam Ford has extensive experience in economic development, international business and brand development. Pam has worked in economic development for 18 years, including representing New Zealand and Auckland on the West Coast of the USA where her focus was attracting international investors to New Zealand. Prior to this, Pam worked as an international marketing professional in private and not for profit sector. Pam's focus is all about working in partnership to make great things happen, relying on trusted networks and strategic relationships.

The Conference Flag Ceremony and Official Opening of the Conference by the ISBS President

– 3:30 pm

The delegates selected to participate as flag bearers during the opening ceremony as they were the first from their country to register for the conference, will proceed to the stage. *(We apologise to delegates from countries who do not have a flag represented in the flag bearing ceremony due to logistics).* The conference will be officially opened by President Young-Hoo with the unfurling of the ISBS banner.



Flag bearers

Timothy Ackland

Ine Mylle

Zachariah Henderson

Kangwei Ai

Marion Mundt

Peter Katona

Rajinikumar Palaniyappan

Andrew Harrison

Matteo Zago

Natsuki Sado

Ji Hyun Jang

Jeroen Van Der Eb

Anthony Sharp

Helen Bayne

Raúl Arellano

Hannah Wyatt

Gretchen Oliver

Cassie Wilson

Enora Le Flao

Rodrigo Bini

Sydney Dreves

Australia

Belgium

Canada

People's Republic of China

Germany

Hungary

India

Ireland

Italy

Japan

Korea, Republic of

Netherlands

New Zealand

South Africa

Spain

UK

USA

England

France

Brazil

Scotland



The ISBS President Professor Young-Hoo Kwon will address the assembled company on behalf of the International Society of Biomechanics in Sports and its Board of Directors, to welcome delegates to the 36th ISBS Annual Conference and to the city of Auckland.

Professor Young-Hoo Kwon of Texas Woman's University, has expertise in Rehabilitation Medicine, Physiotherapy, and Sports Medicine. He is President of the ISBS and has served on the Board for many years.

The ISBS 2018 Conference Inaugural Presidents Award – 3:35 pm

The details of this ISBS 2018 Conference inaugural Presidents Award are confidential until it is awarded. The recipient does not know they are receiving this award.

The citation will be read by Dr Laura-Anne Furlong, ISBS Board member.



Presentation of the ISBS 2018 Conference Student Travel Awards – 3:45 pm

The ISBS President Professor Young-Hoo Kwon and AUT Vice Chancellor Derek McCormack will present the ISBS 2018 conference travel grants to the recipients. NZ\$20,000 is being awarded.

Angelo	Macaro	The University of Queensland	Australia
Daniel	Glassbrook	Macquarie University	Australia
Jodie	Wills	Macquarie University	Australia
Josephine	Grigg	Bond University	Australia
Stephanie	Blair	Victoria University	Australia
Claire	Kenneally-Dabrowski	Australian National University	Australia
Rhiannon	Campbell	University of Canberra	Australia
Daniel	Cottam	University of Western Australia	Australia
Jan-Frieder	Harmsen	German Sport University	Germany
Jonathan	Staynor	University of Western Australia	Australia
Mu-Lin	Tai	National Taiwan Sport University	Taiwan
Paige	Rice	Edith Cowan University	Australia
Tsung-yu	Huang	National Taiwan Sport University	Taiwan
Druv	Gupta	The University of Texas at Austin	USA
Kei	Maeda	University of Tsukuba	Japan
Kevin	Park	Hankuk Academy of Foreign Studies	South Korea
Koudayu	Zushi	University of Tsukuba	Japan
Shusei	Sugi	Fukuoka University	Japan
Takafumi	Kageyuki	University of Tsukuba	Japan
Julian	Fritz	University of Salzburg	Austria
Kazutaka	Takahashi	University of Tsukuba	Japan
Kevin	Stein	Heidelberg University	Germany
Louise	Burnie	Sheffield Hallam University	UK
Man Kit	Lei	National Cheng Kung University	Taiwan
Naoki	Numazu	University of Tsukuba	Japan
Raihana	Sharir	Liverpool John Moores University	UK
Stephanie	Moore	Northern Michigan University	USA
Takahisa	Oguchi	Nippon Sport Science University	Japan
Zoe	Bamber	Loughborough University	UK
Ine	Mylle	Northern Michigan University	USA
Sydney	Dreves	Abertay University	Scotland
Zhang	Cui	Shandong Sport University	China
Brian	Budd II	Northern Michigan University	USA
Kevin	Moore	Marshall University	USA
Leigh	Jeffries	Lakehead University	USA
Naoya	Iida	Sapporo Medical University	Japan
Olivia	Perrin	Northern Michigan University	USA
Sina	David	German Sport University	Germany
Zachariah	Henderson	Lakehead University	Canada
Alyssa	Rebensburg	Northern Michigan University	USA
Andrew	Ebert	Marshall University	USA
Ashley	VanSumeren	Northern Michigan University	USA
Ashlyn	Jendro	Northern Michigan University	USA
Ian	McQuate	Nova Southeastern University	USA
Johannes	Funken	German Sport University Cologne	Germany
Josef	Viellehner	German Sport University Cologne	Germany
Joshua	Goreham	Dalhousie University	Canada
Katelyn	Varga	Lakehead University	Canada
Marion	Mundt	German Sport University Cologne	Germany
Patrick	Siedlecki	Western University	Canada
Shen	Peixin	Shandong Sport University	China

Sun	Wei	Shandong Sport University	China
Sydni	Wilhoite	Georgia Southern University	USA
Thomas	Dupré	German Sport University Cologne	Germany
Dominique	Cava	Lakehead University	Canada
Nihat	Özgören	Hacettepe University	Turkey
Victor	Lopez	USA & Auckland University of Technology	USA



Kaikōrero Address and Kapahaka – 3:55-4:10

The Kaikōrero Dr Valance Smith will perform the traditional Māori blessing of the gifts for dignitaries. Master wood carver Jarrod Hume was commissioned to create hand carved pohutukawa, puriri, and kauri (native NZ trees) items for dignitaries. Jarrod reclaimed the wood from fallen trees at Kawau Island in Auckland’s Hauraki Gulf. He dried the wood for two years, hand carved each item, and added Pasifika art work of his own creation using pyrography.



The AUT kapahaka group, Tīahi ki Tua, will again perform for the assembled company.

ISBS Geoffrey Dyson Awardee Herman Schwameder - 4:10-4:55 pm



Professor Hermann Schwameder will be introduced by ISBS President Professor Young-Hoo Kwon.

The prestigious Geoffrey Dyson Lecture is an invited presentation given by scientists who have made an outstanding contribution to ISBS and the field of sports biomechanics.

Hermann has held professorships at Karlsruhe Institute of Technology and currently the University of Salzburg. His research scope is impressive and includes, for example, Sport Performance and Injury, Sports Medicine, Technology, and Clinical biomechanics. He has worked Olympic Sports (Ski Jumping, Amputee Athletics), manufacturers (Adidas) and contributed significantly to clinical and health related research (Obesity, ACL research). In 2004 Professor Schwameder became President Elect, followed by the Presidency between 2005- 2007 and Past Presidency 2007-2008. His term of office was productive, characterised by a supportive, outfacing and transparent structure and included the hosting of the 24th ISBS conference in Salzburg in 2006. He has developed a highly-regarded research group at the University of Salzburg as evidenced by the quality of the students and researchers that emerge under his leadership.

ISBS 2018 AUCKLAND GEOFFREY DYSON AWARD KEYNOTE LECTURE

MOVING ON SLOPES: ISSUES AND CHALLENGES FROM A BIOMECHANICAL PERSPECTIVE

Hermann Schwameder

**Department of Sport Science and Kinesiology
University of Salzburg, Austria**

Moving on slopes is part of daily living locomotion, but also several sport disciplines are performed on inclined terrain. From a biomechanical perspective locomotion on slopes is a challenging task as additional work has to be done compared to locomotion on flat terrain. Moving downwards supports the locomotion due to gravity, however, steep slopes often lead to high speeds caused by the transfer of potential to kinetic energy. Then locomotion is accompanied with the challenge to control speed. Another issue is the aspect of joint loading when moving on slopes. An increase of potential or kinetic energy is associated with an enhancement of work done by the joint structures. The purpose of the presentation is to characterize the specificity and challenges when moving on slopes from a biomechanical perspective including performance, coordination, safety and joint loading in daily movement and sport related tasks.

Industry Partners Representative Address – 4:55 pm



Imogen Moorhouse (VICON'S CEO) from the ISBS 2018 Auckland Conference Platinum Industry Partner VICON, will address the assembled company and invite them to the opening Industry Playground Event immediately following the procession of the delegates from the theatre into the Sir Paul Reeves Atrium.

Imogen gained her mechanical engineering degree in 1993 and worked in technology businesses in a variety of sales roles before joining Vicon in 2001. She has held a number of roles encompassing sales, support, manufacturing and general management before becoming CEO in 2012. Imogen was an integral part of Vicon acquiring home grown New Zealand company IMeasureU and is delighted to be at ISBS 2018.

Conclusion – 5:00

The delegates will be requested to rise and remain standing for the procession of the dignitaries from the auditorium. All delegates will then proceed to the Kiwiana Opening Reception in the Sir Paul Reeves Atrium, where they will be greeted by Kelly Sheerin, and Alex Muir from VICON, on behalf of the industry partner medallists participating in the Playing Field Events.



Taku Manu Tāwhiowhio

<http://www.waiata.maori.nz/song/taku-manu-taawhiowhio>

- **Composers:** Jason King, Valance Smith,
- **Year:** 2011
- **Genre:** Mōteatea - Pātere
- **Ref#:** KIN001



Jason King - Ko Tainui te waka. Ko Waikato te iwi. Ko Ngāti Mahuta te hapū. Ko Te Koraha te marae. Ko Tahāroa te papakāinga. Ko te reo Māori te moko o te hinengaro, he reo ohooho, he māpihi maurea, he whakakai marihi. The Māori language is the blueprint to the soul and mind, a treasured adornment that is upheld with the highest esteem.

Valance Smith - Valance Smith (Ngāpuhi, Waikato, Ngāti Mahuta) is a Lecturer at AUT University. He teaches Te Reo Māori (undergraduate) and Tikanga Māori (post graduate) papers within Te Ara Poutama, The Faculty of Māori and Indigenous Development at AUT. Valance also

teaches at The School of Education. His services to AUT include cultural advisor and Kaikōrero (orator).



Explanation of the creation of the song

In the month of December 2010 an idea came up to compose a supportive song or chant for **Sir Paul Reeves**. The idea of this particular chant arose because of his enduring strength, dedication and commitment to Māori, Pākehā and to his faith in God. Sir Paul Reeves was known throughout Māoridom and indeed many parts of the world. He was not just a great man; but a man capable of doing amazing things amongst the people. He also stood as chancellor for the Auckland University of Technology, AUT University for many years. Therefore, this is a chant of support layered with metaphorical images that describe this man and also gives descriptions of the surrounding Auckland area. This particular song has a thematic approach in terms of using birds as the medium for which to carry the word. Incidentally this song talks of the gathering of birds in one area of which they discuss the topical issues of the time.

This chant can also be seen as a map of special landmarks of mountains, rivers, streams, bays, coves and the ocean of not only the Auckland area, but of the general Māori environment. Within this chant important ancestors and events are referred to which connects the Auckland isthmus area. This chant was also co-written with a colleague, Vallance Smith, who provided the appropriate beat to this chant and also provided various lines within the chant. Acknowledgment also needs to be given to Ngarimu Blair of Ngāti Whātua, who provided explanations according to Ngāti Whātua records, the historical events that occurred within the Auckland city area. The last acknowledgement here must be given to Sir Paul Reeves who sadly was claimed by the Māori ancestress, Hine-nui-i-te-pō, on the August 14, 2011. It was at his funeral that Auckland and indeed New Zealand was blanketed with snow reminiscent to that of the crest of his mountain Taranaki, the falling of snow was seen as a sign of affection, as a sign of his faith in God and his chiefly status among the people. Therefore oh revered one, rest in peace.

My navigating bird has been silenced forever,
Alas I am torn within.

Manu Tāwhiowhio: Line 1: This is a navigational bird, it is a bird chosen here as it seeks new horizons and will help those of which it guides through troubles. This bird is also the symbol of AUT University as the bird that guides AUT University.

Tini o Hākuturi: Line 2: Hākuturi can be seen as a guardian of the forest and it resembles a leader of masses, in this case flocks of birds.

Manu Honenga, Manu Whitirua: Lines 3 & 4: Both are used to describe chiefly bird.

Ngā Wai o Horotiu: Line 6: The name given to the marae of AUT University, it is also a spring which emerged from the ridge of Karangāhape Road and flows down through Te Rou Kai which is an area in Auckland City and out to the Waitemātā harbour.

Purengi: Line 10: This is the name of the meeting house of AUT University, it is also a name that represents the ropes that bind the double hulled canoe together. It also connects both the mast and sails and its role is to ensure that the canoe does not break or separate. With the ropes mentioned the idea is that people are also bound together under one thought and in a common goal under the auspices of peace and well-being.

Rangitāmiro ai te kōwhao o te ngira: Line 11: A section of this line was part of a saying which was recited by the first Māori King, Kīngi Pōtatau Te Wherowhero which was, 'kōwhao o te ngira'. The meaning here is about weaving and connecting the different strands together under one common purpose or goal. In this particular sentence the weaving

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together of religions and people under one thought is realised and is seen through the 'eye of the needle' 'the doorway to the lord'. King Pōtatau also resided in the Auckland City Central namely Pukekaroro and Pukekawa (near the Auckland Museum). King Pōtatau was the significant first leader of Māoridom and can be seen as a carved figure on the veranda of the meeting house (Te Purengi). So therefore the meeting house resembles the eye of the needle through which enters the multitudes big or small. Sir Paul Reeves was likened to the eye of the needle and as a servant of the lord.

Takakawehia te ara poutama: These words were taken from the proverb used as a guiding principle for Te Ara Poutama: The Faculty of Māori Development, AUT University.

Te Ipu o Mataaoho: Line 14: There are numerous stories pertaining to this god Mataaoho. To some he came from Hawaiki, according to others he is a child of Ranginui (the sky father) & Papatūānuku (Mother Earth) however, in Auckland; Mataaoho is considered as the guardian of volcanoes. According to histories regarding Mataaoho, he brought forth fire from Hawaiki to light the peaks of Auckland. According to Ngāti Whātua, translating to 'The Bowl of Mataaoho' also takes other titles which are 'Te Kapua Kai o Mataaoho' and 'Maungawhau' known as or Mt. Eden or Mt. Eden Crater.

Rangipuke: Line 15: The original name for Albert Park is 'Rangipuke'. 'Rangipuke' consisted of 3 pā sites of which all fell under the one name 'Horotiu'.

Rerenga Oraiti: Line 17: In the year 1680, a tribe by the name of 'Ngāti Huarere' resided along the ridgelines of Auckland. A war party from Ngāti Whātua ki Kaipara proclaimed war against them and a battle arose. The name of this battle was 'Te Raupatu Tihore'. According to Ngāti Whātua the famous chief Kāwharu was summoned, and it was he who led the war. It was said that Kāwharu was a master assassin or henchmen and has ties to Tainui of which he resided in Kāwhia. As a consequence, Ngāti Whātua under the leadership of Kāwharu had succeeded in their endeavour to overtake the current occupants. Those of Ngāti Huarere who survived were thrown off the cliffs of these ridges. It is said that Kāwharu had the final say as to who would live and who would die. So several fell and others jumped voluntarily since they felt if caught they would be subjected to far worse fates namely becoming slaves for Ngāti Whātua. That is why these words were used 'rerenga oraiti... (o Ngāti Huarere)' to describe 'the small flight of life of Ngāti Huarere'.

On the 18th of September, 1840 this was the period that the 'Auckland Township' was given birth and was also the first time the flag of New Zealand was flown. To mark the occasion the site known as 'Rerenga Oraiti' was renamed 'Britomart Point' in honour of 'HMS Britomart'. It was this vessel which mapped out the Auckland area.

Te Whatu Tauranga kāwau tikitiki: Line 18: At the base of the Cliffside of 'Rerenga Oraiti' there is a stone known as 'Te Whatu' which in accordance to Ngāti Whātua was known as a very significant area where canoes would rest and be brought to shore. This stone was known as an anchorage on the shores of Auckland. The term "kāwau tikitiki" describes a chiefly person, whose prominence draws those from land and sea towards him. That is the reason why the term 'kawau tikitiki' is likened to the chancellor of the university whose role is to call and gather the multitudes.

Pou herenga waka: Line 19: Is reference to Auckland which was seen as 'the mooring place of canoes'

Ko te mātāpuna o te kete Aronui: Line 22: These words were collected as a name for AUT University which captures the essence of this institution. It is likened to the basket of knowledge 'Aronui' which holds the knowledge of the world.



Sir Paul Reeves with a NZ Kiwi bird, and the AUT conference building named after him.

