Scientific Program

Program

Day 1

Friday, April 24, 2026

Start Time	Duration	A-1 Room [Maximum capacity: 150]	A-2 Room [Maximum capacity: 25]	Lobby (Poster Session)
9:30	30			Registration
10:00	5	Opening Ceremony & Event		
10:05	50	Keynote Lecture (1) Technology-Driven Athlete Support in Practice From Elite to Youth Athletes Speakers & Topics: •**Scientific Training in Practice for Elite Athletes** Dr. Masaaki Kanno (JATI President, Japan) •**Non-invasive electrophysiological**		

		Dr. Takayuki Inami (Keio Univ., Japan)	
11:05	45	Symposium (1) Trends in Sports Science & Technology Speakers & Topics: •**Effects of Pneumatic Resistance on the Kinetics and Kinematics of Back Squat** Dr. Danny Lum (HPSI, Singapore) •**Development of Intelligent Strength & Conditioning Training Robotics** Dr. Michael Tse (Univ. Hong Kong) •**Data-Driven Periodization in Competitive Swimming: The Role of Microdosing and Fatigue Monitoring** Dr. Jyun-Ru Chen (Univ. Taipei, Taiwan) *Additional Speakers to be confirmed.	Practical Workshop (1) **Ukemi-Based Injury and Fall Prevention: Applying Judo Principles to Protect the Human Body** Dr. Akitoshi Sogabe (Konan Univ., Japan)
11:50			
12:05	40	Lunch Seminar (Corporate Presentations) Sponsored by: ROBERTET JAPON Ltd. Lunch box distribution	
12:45			
13:05	50	Keynote Lecture (2) Tech at the Edge **Technology in Sport Training:How and for what should we utilize it?** Emeritus Prof. Hiroshi Hasegawa(Ryukoku Univ. & JATI	
13:55			

		poster)		
14:35				Poster Presentations with odd numbers (Coffe break)
	50			
15:25				Poster Presentations with even numbers (Coffe break)
15:55	30	Educational Lecture (1) **Exercise as Medicine and High-Performance Sport: Integrating Science, Technology, and Practice Across the Lifespan** Dr. Michael Tse (Univ. Hong Kong)		
16:05	50	Symposium (2) Support of High-Performance Athletes in Asia Speakers & Topics: •**Sports Science Support for High Performance Athletes in Singapore** Dr. Danny Lum (HPSI, Singapore) •**Shaping the Future of Sport and Health Sciences through Co-Creation and Global Collaboration** V.P. Dr. Akira Maeda (NIFS, Japan) •**Applied Strength and Conditioning for Competitive Swimming: Bridging Science and Practice in Taiwan** Dr. Jyun-Ru Chen (Univ. Taipei, Taiwan)	Practical Workshop (2) **Performance Evaluation of Tennis Players Based on Ball Speed and Spin Rate** Dr. Hiroo Takahashi(NIFS, Japan)	
16:55		•**High Performance**		

		Dr. Michael Tse (Univ. Hong Kong) *Additional Speakers to be confirmed.		
17:05	80	Hit a workout or watch the Muscle Gate competition in the exhibition area, or a relaxed warm-up on the Ginowan Tropical Beach with snacks and drinks		
18:25				
18:30		Welcome Party		
19:00	90			
19:30				

Venue Map

Day 2

Saturday, April 25, 2026

Start Time	Duration	A-1 Room [Maximum capacity: 150]	A-2 Room [Maximum capacity: 25]	Lobby (Poster Session)
8:00		Beach Yoga at Ginowan Tropical Beach Ms. Midori Kahata *Please bring a mat or a large towel if necessary. *Canceled in case of rain		
8:30				
9:00	30			
9:30	30	Morning Seminar **Isometric Training: Science and Practice in High Performance Sports** Dr. Danny Lum (HPSI, Singapore)	Practical Workshop (3) **Velocity-Based Training in Practice: Strategies to Enhance Athletic Performance** Dr. Rikiya Sunakawa(Univ. of the Ryukyus)	
		Educational Lecture (2) **Age-related**		

		Chris (Univ. British Columbia, Canada)	
10:30	30	Award Nominated Mini Oral Presentation 3-5 finalist	
11:00	30		Award Poster presentation
11:30	40	**Conference Theme Discussion** Dr. Danny Lum (HPSI, Singapore) Dr. Michael Tse (Univ. Hong Kong) Dr. McNeil Chris (Univ. British Columbia, Canada) Emeritus Prof. Hiroshi Hasegawa (Ryukoku Univ., Japan) Roundtable Facilitator: V.P. Dr. Akira Maeda (NIFS, Japan) *Additional Speakers to be confirmed.	
12:00			
12:30	5	Awards and Closing Ceremony	

* Note: Schedule is subject to change.

Venue Map

Conference Faculty

Keynote Lecture



Masaaki Kanno

JATI President, Japan

Keynote topic

Scientific Training in Practice for Elite Athletes

Abstract

This keynote lecture presents an overview of the theoretical foundations and applied practices of resistance training grounded in scientific evidence, as implemented in the training environments of elite athletes representing Japan. Emphasis is placed on key performance-related variables that are closely associated with sport performance development, including velocity-based training (VBT), power, impulse, rate of force development (RFD), and movement velocity during the eccentric phase.
Relevant findings from prior research are systematically reviewed to clarify the physiological and mechanical rationale underlying these training variables. Particular attention is given to how these scientific

examples involving elite athletes, this lecture illustrates the integration of research evidence into program design, including exercise selection, intensity prescription, and repetition scheme configuration.
By bridging the gap between experimental research and applied coaching practice, this keynote lecture aims to provide a comprehensive framework for evidence-based resistance training. The perspectives presented are intended to contribute to the advancement of resistance training methodology and to support the continued development of effective training strategies for elite athletic performance.

Short bio

Dr. Masaki Kanno is a leading Japanese strength and conditioning specialist, sports scientist, and educator. He serves as President of the Japan Association of Training Instructors (JATI) and has played a key role in advancing professional standards, coach education, and international exchange in Japan’s training and conditioning field.
His research and publications focus on resistance and high-velocity training, ageing and functional performance, Scrum training and sprint in rugby players, and contact fitness training. He is also an author of several widely used textbooks for training instructors.
In applied sport, Dr. Kanno has served as the strength and conditioning coach for a team competing in the Japan top Handball League(League H) since his appointment, during which the team has achieved five consecutive league championships. He is a certified JATI Senior Advanced Training Instructor (JATI-SATI) and Health Exercise Instructor, and is widely recognised for bridging scientific research with applied coaching practice.

PAGE TOP

Takayuki Inami

Keio University, Japan
Institute of Physical Education
Graduate School of Health Management
(Public Health, Sport and Health Sciences)

Topic

Non-invasive electrophysiological monitoring of conditioning using bioelectrical impedance analysis

Abstract

Muscle damage often occurs after intense exercise, training or sports activities. Monitoring muscle damage and managing muscle conditions, including through planned care strategies, can benefit many people, such as exercise beginners and enthusiastic athletes, by providing increased opportunities for early recovery. On the other hand, bioelectrical impedance analysis (BIA) estimates body composition by applying a small electric current to the body and measuring electrical characteristics, such as reactance (Xc), resistance (R) and impedance (Z). BIA has become widely used in recent years to assess muscle condition, and research in this field is expanding. This presentation will focus mainly on BIA, explaining how this non-invasive method enables repeated measurements to be taken in order to quantify condition control.

Short bio

University. Dr Inami's laboratory aims to improve sports performance and promote health by 'visualising' training, conditioning and recovery through quantitative evaluation using ultrasound elastography, urine analysis, electromyography (EMG), 3-D motion-analysis, the jump App, and bioelectrical impedance analysis (BIA), among other methods.
Moreover, to its academic work, the laboratoy supports national athletes in various sports, including track and field, baseball, golf, swimming and squash.

Takayuki Inami Contact & Profile

Hiroshi Hasegawa

Professor Emeritus, Ryukoku University; Honorary President, JATI

Keynote topic

Technology in Sport Training:How and for what should we utilize it?

Abstract

Today, various technologies are increasingly being used in actual training settings to collect objective data.
Advances in technology are expected to lead to the development and market availability of even more measurement devices in the future.
However, the purpose of using these technologies is not data collection itself, but

individualization.
This lecture uses the historical evolution of technologies for measuring lifting speed in weight training as an example. It explains the requirements demanded of technologies needed in sports training settings and the critical importance of coaches' understanding of these technologies to utilize them effectively.
From this perspective, we will also introduce the latest technologies in other training domains, such as sprinting and jumping. Furthermore, we propose future directions for technology and how scientists and coaches should engage with it.

Short bio

Professor Emeritus Hasegawa is a pioneering figure in the Japanese strength and conditioning (S&C) community and a leading advocate of evidence-based training. He is a one of the founding members of the Japan Association of Training Instructors (JATI) and served as its President for many years, playing a central role in shaping the professional standards and educational framework of the Japanese training industry. He currently holds positions of Honorary President

Educational Lecture

Michael Tse

Director of Centre for Sports and Exercise, The University of Hong Kong (HKU)
Director of Active Health Clinic, HKU
Honorary Research Fellow, Sau Po Centre on Aging
President, Hong Kong Olympians Association

Topic

Exercise as Medicine and High-Performance Sport: Integrating Science, Technology, and Practice Across the Lifespan.

Abstract

This presentation examines the important role of exercise both as a form of medicine and as a foundation of high-performance sport. It highlights how recent advances in science and technology are helping us better understand and apply physical activity across all stages of life. By combining insights from sports science, wearable devices, and data analysis, we can create personalized programs that improve health, prevent disease, and enhance athletic performance. The knowledge gained from elite sports also offers valuable lessons for promoting movement, resilience, and recovery in everyday life. Integrating these approaches encourages a holistic view of exercise as a powerful tool for lifelong health and well-being. Ultimately, this approach, informed by data-driven decision making, aims to make exercise more accessible and effective for everyone, from youth to seniors, fostering healthier, more active communities.

Clinic at The University of Hong Kong. A pioneer in the field of strength and conditioning in Hong Kong, he was instrumental in establishing and shaping the discipline from its early beginnings in the 1990s. Throughout his career, Dr. Tse has worked with and coached numerous world champion and Olympic-level athletes across approximately 20 different sports.
His research spans a broad spectrum, from enhancing athletic performance to promoting health and rehabilitation for populations with chronic inactivity-related diseases such as diabetes, certain cancers, as well as mental disabilities, and frailty among the elderly. Committed to translating science into practice, he actively contributes to strength training and coaching, working with both amateur competitive athletes and university sports teams. Dr. Tse's work continues to advance the fields of sports science, health, and active aging.

Michael Tse Contact & Profile (HKU)

Chris McNeil

The University of British Columbia, Canada

Topic

Age-related changes to neuromuscular function

neuromuscular system of healthy older adults, then describe how these changes affect functional outcomes such as strength, power, and fatigability. The influence of biological sex as well as habitual physical activity will also be discussed.

Short Bio

Dr. Chris McNeil is a Professor in the School of Health and Exercise Sciences at the Okanagan campus of The University of British Columbia. Dr. McNeil's research takes an integrative approach to examine the performance and plasticity of the human nervous and muscular systems. Research questions relate to acute interventions such as neuromuscular fatigue or hypoxia, as well as chronic perturbations such as aging or disease. In addition, Dr. McNeil has also made significant academic contributions as an Associate Editor for a journal of the American College of Sports Medicine (Exercise and Sport Sciences Reviews) and as a member of the Editorial Board of the Journal of Applied Physiology.

Chris McNeil Contact & Profile (UBC)

Symposium Speaker

Akira Maeda, Ph.D.

Executive Vice President, National Institute of Fitness and Sports in Kanoya
Director, Sports Innovation Organization National Institute of Fitness and Sports in Kanoya
President, Japanese Society of Sport Performance
Deputy Executive Committee Chair, SPORTEC

Topic

Shaping the Future of Sport and Health Sciences through Co-Creation and Global Collaboration

Short bio

April 2022 – Present
Executive Vice President National Institute of Fitness and Sports in Kanoya

August 2016 – March 2022
Special Advisor to the President (Sport Performance Research) National Institute of Fitness and Sports in Kanoya

April 2013 – September 2015
Special Advisor to the President (Student Support)
National Institute of Fitness and Sports in Kanoya

October 2006 – Present
Professor
National Institute of Fitness and Sports in Kanoya

September 2002 – September 2006
Associate Professor National Institute of Fitness and Sports in Kanoya

Jyun-Ru Chen

University of Taipei

Short bio

Dr. Jyun-Ru Chen is a Lecturer and Strength & Conditioning Coach at the University of Taipei (UT). He is also the Program Coordinator for Strength & Conditioning at UT. Under his leadership, the UT swimming team has won four consecutive National Intercollegiate Athletic Games (Division I) championships in Taiwan. He has worked with a wide range of athletes, from youth athletes to Asian Games medalists, in sports such as athletics, wrestling, karate, and tennis. He earned his PhD in Sport Science and holds NSCA-CSCS, NSCA-RSCC and ASCA-SC Level1 certifications. His main areas of expertise are periodization, fatigue recovery, and sport measurement.

Morning Seminar

Danny Lum

topic

Science and Application of Isometric Training in High Performance Sports.

Synopsis

The use of isometric training in high performance sports has been gaining much popularity in recent years due to increased evidence on its benefit on athletic performance. These research studies were mostly conducted in the High Performance Sport Institute of Singapore. This presentation will review the findings on the neuromuscular adaptations to isometric training and how these findings are applied to benefit higher performance athlete.

Short bio

Dr Danny Lum is a Senior Strength and Conditioning Coach at the High Performance Sport Institute of Singapore and adjunct lecturer at La Trobe University, Melbourne. He has worked with athletes from over twenty sports including our Olympic and Asian Games medallists in athletics, kayaking and table tennis. Apart from coaching, he has also conducted multiple research studies which have been published in international peer reviewed journals and presented in sports science conferences. He is most well known for his research on isometric training and testing.

Practical Workshop

Akitoshi Sogabe, Ph.D.

Professor, Konan University, Japan
Director, Education and Research Center for Sport and Health Science
Director, Fall Prevention Research Center

Topic

Ukemi-Based Injury and Fall Prevention: Applying Judo Principles to Protect the Human Body

Abstract

Falls are a major global public health issue. Even when not fatal, falls frequently lead to severe injuries such as traumatic brain injury, and the World Health Organization has urged countries to implement preventive strategies. Recent research has demonstrated that Judo-based fall prevention programs significantly reduce fall risk (Jadczak et al., 2023). Furthermore, teaching safe falling techniques can reduce fear of falling and potentially contribute to lowering healthcare costs.
One of Judo's fundamental techniques, Ukemi (safe falling methods), is not only effective for daily-life fall prevention among older adults but also contributes to injury reduction in contact sports such as rugby.
In this practical session, participants will experience progressive, hands-on instruction

Judo principles can be translated into universal movement education for injury prevention across age groups and athletic levels.

Short bio

Dr. Akitoshi Sogabe is a Professor at Konan University and Director of both the Education and Research Center for Sport and Health Science and the Fall Prevention Research Center. He received his Ph.D. in Sports Medicine from the University of Tsukuba in 2005.

His expertise spans sports medicine, training science, international sport policy, and Budo studies. He has served as a Strength and Conditioning Coach for the Japanese National Women's Judo Team (2005–2012) and was a coach for the London 2012 Olympic Games. He currently holds leadership roles within the All Japan Judo Federation and serves on multiple academic committees, including editorial board memberships in sport and judo-related journals.

Dr. Sogabe has been actively involved in international research collaborations, holding visiting scholar positions in the United States, Australia, and Poland. His recent work focuses on fall prevention through Judo-based movement education. In May 2024, he contributed to the international "Global Consensus Statement: How Can Judo Contribute to Reducing the Problem of Injurious Falls in Older Adults?" promoting the global application of Ukemi (safe falling techniques) as a preventive strategy.

He will deliver a practical session demonstrating how Judo principles can be applied to injury prevention and fall-risk reduction across populations.

Hiroo Takahashi

National Institute of Fitness and Sports in Kanoya, Japan

Topic

Performance Evaluation of Tennis Players Based on Ball Speed and Spin Rate

Short bio

Dr. Takahashi has been a Professor at the National Institute of Fitness and Sports in Kanoya since 2019 and has served as Head of the Sports Performance and Coaching Department at the Center for Sports Innovation since 2023. His research focuses on game performance analysis in tennis and coaching science, with major publications including Coaching Science of Ball Games and Tennis Instruction Manual I and II (published in Japanese).

Rikiya Sunakawa

Professor, University of the Ryukyus, Japan

Topic

Velocity-Based Training in Practice: Strategies to Enhance Athletic Performance

Velocity-Based Training (VBT) to maximize training effectiveness across a wide range of populations, including elite athletes, recreationally trained individuals, and health-oriented participants.

The session is structured as an applied training seminar centered on live demonstrations and practical implementation rather than a lecture-based format.

Participants will observe and engage with real-time use of velocity tracking devices and performance monitoring tools to understand how objective feedback can guide load prescription, regulate intensity, monitor fatigue, and optimize neuromuscular adaptations.

While a concise overview of the scientific principles underlying VBT will be provided, the primary emphasis will be on practical execution and field application.

Demonstrations will illustrate how velocity data can be used not only to enhance athletic performance (e.g., power development and rate of force development), but also to support safe and effective resistance training in health promotion, injury prevention, and general fitness settings.

Applied case examples will highlight how technology-driven resistance training can be individualized according to performance level, training experience, and health status.

Participants will gain practical strategies for integrating VBT into both high-performance sport environments and health science contexts.

By emphasizing experiential learning and technological integration, this workshop aims to equip coaches, practitioners, sport scientists, and health professionals with actionable methods for implementing data-informed resistance training to optimize both performance and health outcomes.

training science and exercise physiology, with particular expertise in resistance training, Velocity-Based Training (VBT), and Post-Activation Potentiation (PAP). Dr. Sunakawa's research explores the neuromuscular and physiological mechanisms underlying performance enhancement and functional adaptation. Dr. Sunakawa conducts interdisciplinary research across diverse populations, ranging from competitive athletes to community-dwelling adults, integrating physical activity assessment, fitness evaluation, and evidence-based exercise interventions. In addition to research activities, Dr. Sunakawa is actively involved in higher education, graduate supervision, and community engagement, contributing to the advancement and dissemination of evidence-based practice in sports science and health promotion.

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