



CAOS **International** 2026

The 26th Annual Meeting of the **International** Society for Computer Assisted Orthopedic Surgery

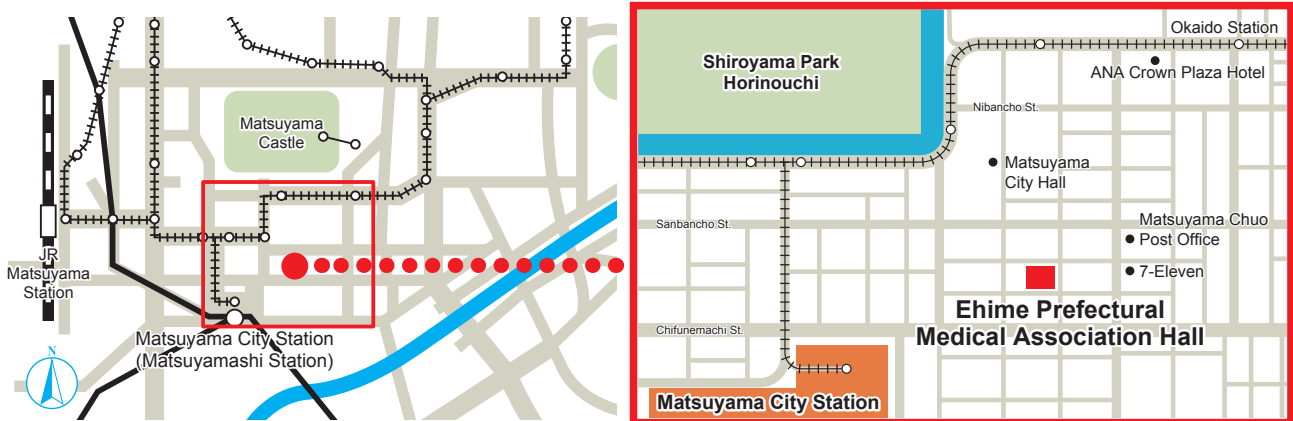
June 10(Wed) ~ 13(Sat), 2026

Venue: **Ehime Prefectural** Medical Association Hall

Conference Chairman: Masaki Takao (Professor, Department of Orthopaedic Surgery,)
Ehime University Graduate School of Medicine)



VENUE



TRANSPORTATION

■ Airport Shuttle Bus

A bus operates from Matsuyama Airport to Matsuyama City Station.

Please see the link below for details.

Timetable Matsuyama Airport - Dogo Onsen. (via Matsuyama City Station):

Please pay the bus fare either in cash or with a mobile ticket.

*Credit cards are not accepted.

<https://www.iyotetsu.co.jp/bus/global/en/airport.html?t=202606>

The fare to Matsuyama City Station is 1,000 yen.

⚠ Caution!!

It's Matsuyama City Station, not JR Matsuyama Station.

Please be careful not to get off at the wrong station.

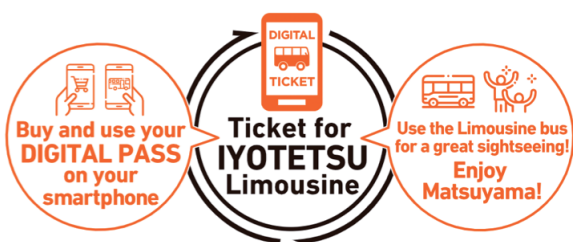
How to get to the Ehime Prefectural Medical Association Hall

Download the application below and search for routes from the airport to Matsuyama City Station.

A mobile ticket option will appear in the search results.

Please follow the on-screen instructions to complete your purchase.

*When searching in the app, enter "Matsuyamashi Station." The correct name, "Matsuyama City Station" is not recognized by the app's search function.



Japan Transit
Planner

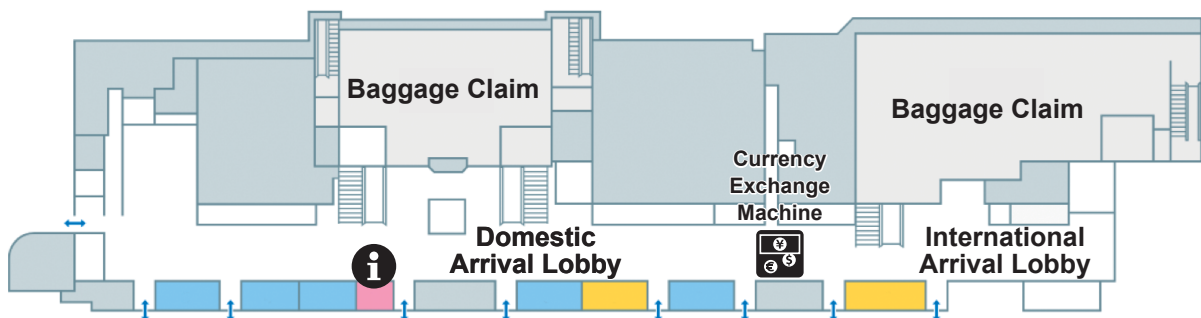


iOS



Android

Please board the shuttle bus at Bus Stop No. 4 or No. 5, located to the left of Gate D.
If you have any questions about app usage or cannot find the bus stop, please visit the Information Desk for assistance.



Take the limousine at the No. 4 or 5 bus stop

■ Taxi

If you are coming to the venue by taxi, please show the information below to your taxi driver.

愛媛県医師会館までお願いいたします。
Could you take me to the Ehime Prefectural Medical Association Hall, please?

SOCIAL EVENT



■ DAY 1

Welcome cocktail

We will be serving welcome cocktails during the workshop.

Date: 10th June, 2026, 14:30 – 17:40

Venue: Ehime Prefectural Medical Association Hall



■DAY2

Presidential Dinner

Experience authentic Japanese hospitality at a traditional ryokan with over 390 years of history.

*This event is by invitation only.

Date: 11th June, 2026, 18:30 – 21:00

Meeting time: 18:00

Meeting point: Entrance of the Ehime Prefectural Medical Association Hall

*Transportation will be provided from the Ehime Prefectural Medical Association Hall to Funaya, and from Funaya to Matsuyama City Station.



Young Investigator Chill Out

We will arrange a tour of a local craft brewery, followed by light refreshments and networking opportunities.

The eligibility criteria are not based on age, but rather on having a youthful mindset.

Date: 11th June, 2026, 18:30 – 21:00

Venue: Dogo Ichie

Participation: Advance registration required.

*Participation is free of charge.

Meeting time: 18:00

Meeting point: Entrance of the Ehime Prefectural Medical Association Hall

*Transportation will be provided from the Ehime Prefectural Medical Association Hall to Funaya.

- A working brewery tour



- In the networking session with light refreshments, the beers from the brewery you visited will be available for free flow.



■DAY3

Morning Walk Event

You can stroll around the Matsuyama Castle area and discover the charms of Matsuyama City.

Date: 12th June, 2026, 6:00 – 7:00

Venue: Matsuyama Castle Park

Meeting time: 6:00

Meeting point: The lobby of ANA Crown Plaza Hotel Matsuyama



Gala Dinner

We are pleased to offer a memorable gala dinner. We will also provide entertainment to welcome and delight our guests, so we warmly invite you to join us.

Date: 12th June, 2026, 18:30 – 21:00

Venue: ANA Crown Plaza Hotel Matsuyama

Participation: Advance registration required.

* Advance payment is required for participation.



• We have prepared special entertainment to welcome and delight our guests.



PROGRAM

Wednesday, June 10th

14:30-16:00 Session 1: Workshop: The Applied Biomechanics Focus Group

CHAIRS: Malte Asseln and Luisa Berger

LOCATION: Conference Room1 (4F)

16:10-17:40 Session 2: Workshop: The oncology working group

CHAIR: Paul Jutte

LOCATION: Conference Room1 (4F)

Thursday, June 11th

08:20-08:30 Session 3: Opening Ceremony

CHAIR: Masaki Takao

LOCATION: Main Hall (5F)

08:30-09:40 Session 4: Robotic surgery

LOCATION: Main Hall (5F)

08:30 Robotic-Assisted Versus Conventional Total Knee Arthroplasty: Differences in Posterior Cruciate Ligament Release Rates in Cruciate-Retaining Designs

PRESENTER: Thanainit Chotanaphuti

08:40 RETROSPECTIVE CT EVALUATION OF PELVIC REFERENCE PINS IN ROBOTIC-ASSISTED AND NAVIGATION-ASSISTED TOTAL HIP ARTHROPLASTY

PRESENTER: Tomoki Mae

08:50 ACCURACY OF IMPLANT PLACEMENT IN ROBOTIC-ASSISTED UNICOMPARTMENTAL KNEE ARTHROPLASTY USING THE CORI SYSTEM

PRESENTER: Kosuke Takada

09:00 Design and Evaluation of a Wireless Robotic System for Long-Bone Fracture Reduction

PRESENTER: Changhyeon Lee

09:10 Automated Laminectomy Using Collaborative Robot: Concept Verification

PRESENTER: Koki Kishimoto

09:20 Comparison of Implant Positioning Accuracy Between Mako and ROSA Robotic-Assisted Total Knee Arthroplasty Using Three-Dimensional CT Analysis

PRESENTER: Takenori Azumi

09:30 POSTOPERATIVE SPORT-INCLUSIVE ACTIVITY AFTER COMPUTER-ASSISTED TOTAL HIP ARTHROPLASTY: ASSOCIATION WITH CUP PLACEMENT ACCURACY AND CENTER OF ROTATION REPRODUCIBILITY

PRESENTER: Hiroyuki Morita

09:50-10:50 Session 5: Navigation System Evaluation

LOCATION: Main Hall (5F)

09:50 Intraoperative Accuracy of Computer-Assisted Navigation for Treatment of Glenoids with Augmented Glenoid Components in Total Shoulder Arthroplasty

PRESENTER: Laurent Angibaud

10:00 COMPARISON OF ACCURACY OF CUP POSITION IN TOTAL HIP ARTHROPLASTY USING NAVBIT SPRINT AND AR-BASED CT NAVIGATION

PRESENTER: Yohei Naito

10:10 Does Intraoperative Navigation Facilitate Accurate Screw Placement According to Preoperative Planning in Reverse Total Shoulder Arthroplasty?

PRESENTER: Hiromichi Omae

10:20 Computer Navigation-Assisted Osteochondroplasty Improves Achievement of Preoperative Cam Resection Plans in Femoroacetabular Impingement

PRESENTER: Masayoshi Saito

10:30 CT-Based Navigation Reduces Outliers and Osteotomy Variability in Curved Varus Osteotomy for Osteonecrosis of the Femoral Head: A Retrospective Comparative Study

PRESENTER: Tatsuhiko Kutsuna

10:40 Improving Workflow Efficiency of an Intraoperative Planning and Guidance System for Mandibular Reconstruction

PRESENTER: Emily Mende

11:00-12:00 Session 6: Luncheon Seminar 1

sponsored by Zimmer Biomet G.K.

CHAIR: Hideki Ueyama

LOCATION: Main Hall (5F)

11:00 Digital Transformation in Orthopedics: ROSA Robotics and the ZB-Edge Ecosystem

PRESENTER: Massoud Shahi

12:00-13:30 Lunch Break

12:30-12:50 Session 7: Sponsored Workshop I

LOCATION: Conference Room 1 (4F)

13:00-13:20 Session 8: Sponsored Workshop II

LOCATION: Conference Room 1 (4F)

13:30-14:40 Session 9: Biomechanics

LOCATION: Main Hall (5F)

13:30 Predicting Plantar Pressure from Non-Weight-Bearing MRI Using a Finite Element Model

PRESENTER: Gabrielle Tuijthof

13:40 Patient-Specific Implants for Femoral and Tibial Shaft Reconstruction: A Systematic Review and Classification Framework

PRESENTER: Mirka Buist

13:50 **What Is the Optimal Graft and Transfer Location in Lower Trapezius Tendon Transfer for Posterosuperior Massive Rotator Cuff Tears? A Cadaveric Biomechanical Study**

PRESENTER: Ryosuke Iio

14:00 **Optimization of Patient Specific Glenosphere Positioning in Reverse Shoulder Arthroplasty Based on Rotator Cuff Conditions: A Cadaveric Biomechanical Simulation Study**

PRESENTER: Ryosuke Iio

14:10 **Analysis of inter-individual morphological variability in owHTO patients**

PRESENTER: Theresa Kandels

14:20 **FURTHER POSTERIOR DWELLING OF THE FEMORAL COMPONENT ON AN MC COMPARED TO A CR BEARING. A FLUOROSCOPIC KINEMATIC ANALYSIS FROM A RANDOMISED CONTROLLED TRIAL**

PRESENTER: Kristian R. L. Mortensen

14:30 **Predicted Bone Union Propensity in Mini-Plate-Based Mandibular Reconstruction Surgery is Affected by Bone Cut Geometry**

PRESENTER: Cassidy Tizzard

14:50-15:50 Session 10: Augmented, Mixed, and Virtual reality

LOCATION: Main Hall (5F)

14:50 **A SMARTPHONE-BASED AUGMENTED REALITY NAVIGATION SYSTEM FOR HIP ARTHROPLASTY**

PRESENTER: Hiroyuki Ogawa

15:00 **COMPARISON OF ACETABULAR CUP PLACEMENT BETWEEN CT-BASED AND PINLESS PORTABLE NAVIGATION SYSTEMS USING AUGMENTED REALITY IN TOTAL HIP ARTHROPLASTY**

PRESENTER: Gai Kobayashi

15:10 **Mixed Reality Spatial Computing In Orthopaedic Oncology: An experience of 72 cases**

PRESENTER: Kwok-Chuen Wong

15:20 **Accuracy of Dual Mobility Cement Cup Placement Using Augmented Reality Navigation in Hip Arthroplasty for Complex Acetabular Reconstruction Surgery**

PRESENTER: Kosuke Sumi

16:00-17:00 Session 11: Knee alignment

LOCATION: Main Hall (5F)

16:00 **COMPARISON OF FEMORAL COMPONENT ROTATION BETWEEN FUNCTIONAL ALIGNMENT VERSUS MECHANICAL ALIGNMENT IN BILATERAL TOTAL KNEE ARTHROPLASTY: A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL**

PRESENTER: Tosapon Thongoumyai

16:10 **Comparison of Radiologic and Clinical Outcomes of the Patella in Restricted Kinematic Alignment and Mechanical Alignment in Bilateral Robotic Total Knee Arthroplasty: A Randomized Controlled Trial**

PRESENTER: Kamonnop Sahasoonthorn

16:20 **UNSUPERVISED MACHINE LEARNING DRIVEN DYNAMIC ALIGNMENT CLASSIFICATION UNDER CONTROLLED LOAD IN NAVIGATED TOTAL KNEE ARTHROPLASTY**

PRESENTER: Laurent Angibaud

16:30 **TIBIAL VARUS RESTRICTION DOES NOT COMPROMISE EARLY OUTCOMES IN ROBOTIC-ASSISTED KINEMATIC ALIGNMENT TOTAL KNEE ARTHROPLASTY**

PRESENTER: Tsukasa Fujieda

16:40 **Leg alignment normal values of a 2D framework might not be valid for a consensus-based 3D framework**

PRESENTER: Gabriëlle Tuijthof

16:50 **ACCURACY OF FEMORAL MECHANICAL AXIS REGISTRATION IN IMAGELESS ROBOTIC- ASSISTED TOTAL KNEE ARTHROPLASTY: A MULTI-CENTER COMPARISON OF THE 5-MM MEDIAL OFFSET AND INTERCONDYLAR NOTCH CENTER**

PRESENTER: Visit Wangwittayakul

17:10-18:00 Session 12: Poster Session

LOCATION: Conference Room 2 (4F)

Comprehensive Gait Evaluation in Patients With Knee Osteoarthritis: Assessment Using a Smartphone-Based Markerless Motion Capture System

PRESENTER: Takashi Tsuda

Three-Dimensional Printing for Intramedullary Pin Fixation in Femoral Diaphyseal Fracture with Osteogenesis Imperfecta: A Case Report

PRESENTER: Takashi Tsuda

Investigation of the Opening Gap Required to Preserve Posterior Tibial Slope According to the Sagittal Anterior–Posterior Inclination of the Osteotomy Plane in Medial Open-Wedge High Tibial Osteotomy

PRESENTER: Mitsuru Hanada

Preoperative Determinants of Patient Satisfaction in End-Stage Knee Osteoarthritis: A Focus on Pain Catastrophizing and Daily Physical Activity

PRESENTER: Tomofumi Kinoshita

TOTAL HIP ARTHROPLASTY FOR ANKYLOSED HIP USING A THREE-DIMENSIONAL PRINTED MODEL AND CT-BASED NAVIGATION: A CASE REPORT

PRESENTER: Wataru Ando

Clinical Outcomes of Full-Endoscopic Foraminotomy Assisted by O-arm Navigation for Cervical Radiculopathy

PRESENTER: Yusuke Murakami

Levels of constraint affect functional outcome of femoral sleeve in revision total knee arthroplasty

PRESENTER: Phatrapol Sthavorn

Treatment for malignant bone tumor with patient' specific cutting guide

PRESENTER: Hisaki Aiba

Impact of osteosclerosis on cervical pedicle screw insertion using preoperative CT-based navigation

PRESENTER: Masashi Uehara

Postoperative patient-reported pain and opioid consumption after total hip arthroplasty: Propensity score matched comparison of the direct superior and posterior approaches

PRESENTER: Won Jik Ju

A Smartphone-Based Augmented Reality–Aided Navigation System for Knee Arthroplasty

PRESENTER: Sachiyuki Tsukada

Three-dimensional evaluation of intertrochanteric femoral fractures: reproducibility and validity of a coordinate system based on the theoretical plane to place the implant (TPI)

PRESENTER: Hiroshi Koyama

Cement Augmentation of Pedicle Screws May Delay Interbody Fusion After Transforaminal Lumbar Interbody Fusion

PRESENTER: Yanming Fang

Evaluation of bilateral symmetry of periacetabular morphology without reference to the femoral head on CT axial images

PRESENTER: Kenta Otsuki

Three-dimensional Relationship Between the Obturator Externus Footprint and the Proximal Femoral Axis.

PRESENTER: Yuka Taguchi

Three-dimensional Computed Tomography Based Preoperative Simulation for Intramedullary Nailing of Distal Tibial Fractures; Both Reduction and Implanting Simulation

PRESENTER: Ryu Tamura

Augmented Reality Using Smartphones for Total Knee Arthroplasty

PRESENTER: Michiru Moriya

Case reports of robotic-assisted hip arthroplasty after wide excision of pubic chondrosarcoma in the anterolateral approach.

PRESENTER: Naoyuki Hirasawa

Comparative analysis of intraoperative kinematics among different total knee arthroplasty designs: Can we restore medial pivot and eliminate anterior paradoxical motion?

PRESENTER: Akinori Nekomoto

Intraoperative Changes in Hip Range of Motion Following Total Hip Arthroplasty: A Quantitative Analysis Using CT-Based Navigation.

PRESENTER: Toshihito Hiraiwa

3D Geometric Articular Surface Analysis of the Wrist for Implant Design

PRESENTER: Malte Asseln

Novel Automated Sub-Segmentation Tool for Quantification of Tumor Features in Soft-Tissue Sarcoma of the Thigh

PRESENTER: Lior Segev-Steinbuch

Symptom Duration–Related Muscle Atrophy And Fatty Degeneration Around The Hip Joint In Unilateral Hip Osteoarthritis: An AI-Based Imaging Study

PRESENTER: Takeshi Ogawa

A Computed Tomography-Based Simulation of Stair Climbing after Curved Varus Osteotomy for Osteonecrosis of the Femoral Head Focusing on the Non-necrotic Weightbearing Area

PRESENTER: Shinichiro Sakai

ROBOTIC CONTROL OF ALL -IN-ONE SOLUTION FOR KNEE BALANCE AND ALIGNMENT OF PRIMARY TOTAL KNEE ARTHROPLASTY

PRESENTER: Eunkyoo Song

Automated Conversion of 3D Bone Meshes to NURBS for Patient-Specific Implant Design

PRESENTER: Malte Asseln

Literature review as a basis for psoas syndrome risk management in THA

PRESENTER: Luisa Berger

Comparison of Patellofemoral Joint Morphology Between Functionally and Mechanically Aligned Total Knee Arthroplasty

PRESENTER: Ho-Jung Jung

DEPTH-ACCURATE BINOCULAR AUGMENTED REALITY NAVIGATION USING RETINAL PROJECTION FOR COMPUTER-ASSISTED ORTHOPEDIC SURGERY

PRESENTER: Shuo-Suei Hung

Clinical outcomes of navigation assisted transtrochanteric rotational osteotomy for osteonecrosis of the head

PRESENTER: Yusuke Osawa

Impact of Demographic, Implant, and Intraoperative Planning Parameters on 2-Year Outcomes in Navigation-Assisted Tibia-First Total Knee Arthroplasty: A Descriptive Study

PRESENTER: Laurent Angibaud

Patient-specific biomechanical analysis of the tibiofemoral tipping point in owHTO

PRESENTER: Theresa Kandels

Variation and agreement rate in preoperative three-dimensional planning for total hip arthroplasty across hip surgeons

PRESENTER: Ryo Higuchi

EVALUATION OF LARGE LANGUAGE MODEL APPLICATIONS IN REVERSE SHOULDER ARTHROPLASTY

PRESENTER: Elvis Chun-Sing Chui

Optimizing Stem Length in Conversion Total Hip Arthroplasty After Intertrochanteric Fracture: A Finite Element Analysis

PRESENTER: Koshiro Shimasaki

Role of Implant Range of Motion in Preventing Recurrent Anterior Dislocation After Revision Total Hip Arthroplasty

PRESENTER: Hidetoshi Hamada

MID-FLEXION LAXITY COULD BE IDENTIFIED WITH CONTINUOUS FLEXION-ARC GAP ASSESSMENT IN PATIENTS WITH A LARGE PREOPERATIVE CONVERGENCE ANGLE.

PRESENTER: Cheol Hee Park

Progressive Whole-Joint Stabilization Driven by Early Morphological Remodeling and Surgical Restoration of Biomechanics in Growing Patients With Capitellar Osteochondritis Dissecans

PRESENTER: Satoshi Miyamura

Cartilage Visualization on Dual-Energy CT Using Optimized Material Pairing

PRESENTER: Hiroki Kondo

Evaluation of the use of a pressure-dispersion pad for kneeling after total knee arthroplasty

PRESENTER: Kunihiko Watamori

Construction of Statistical Shape Models for Lumbar Vertebrae and Femur from QCT Images and Analysis of Age-Related Changes in Bone Quality Parameters

PRESENTER: Natsu Uwai

Depthmap-based 2D–3D Reconstruction of the Carpal Bones from a Single-View Radiograph for Deformity Diagnosis and Treatment Planning

PRESENTER: Yanis Tahrat

Lumbar volumetric Bone Mineral Density Estimation from A Plain X-ray via Generation of BMD Distribution Maps.

PRESENTER: Hibiki Tsuji

Construction of an Online Surgical Training System Using Omnidirectional Video Streaming

PRESENTER: Koji Kato

Clinical and radiographic outcomes of rotational acetabular osteotomy using CT-based navigation for developmental dysplasia of the hip

PRESENTER: Kazuma Takashima

Comparing clinical and radiological outcomes for a three-dimensional printed highly porous cup and a hydroxyapatite-coated non-highly porous cup in computed tomography–navigated total hip arthroplasty using propensity score matching

PRESENTER: Tomoya Okazaki

Automated Multi-Severity Classification and Collapse Risk Prediction of Osteonecrosis of the Femoral Head from MRI: Integrating Deep Learning and Geometric Analysis

PRESENTER: Yuito Kameda

Selection of Intraoperative Navigation System type in Bone Tumor Surgery

PRESENTER: Taketsugu Fujibuchi

Difference of muscle volume and myosteatosis of lower limb muscles between knee osteoarthritis and hip osteoarthritis: artificial intelligence-based computed tomography analysis

PRESENTER: Akito Ito

Which Cross-Sectional Area of the Lower Leg Muscle on Computed Tomography Reflects Skeletal Muscle Mass Reduction in Patients with Hip Osteoarthritis Most?

PRESENTER: Ryosuke Nishimura

ROBOTIC-ARM ASSISTED TOTAL KNEE ARTHROPLASTY IS ASSOCIATED WITH IMPROVED EARLY FUNCTIONAL RECOVERY COMPARED WITH CONVENTIONAL TOTAL KNEE ARTHROPLASTY

PRESENTER: Han-Jun Lee

Feasibility of 3D-Printed Rigid Spinal Orthoses Using Patient Scan Data

PRESENTER: Yuichi Tajima

Strategic Approach in Full-Endoscopic Spine Surgery: Bilateral Contralateral Laminoplasty (FE-BCL) to Preserve Posterior Stabilizing Structures Regardless of Anatomical Variations

PRESENTER: Shintaro Yamaoka

Preoperative Patellofemoral Alignment Affects Anterior Knee Pain After Primary Total Knee Arthroplasty Without Patellar Resurfacing

PRESENTER: Han-Jun Lee

Perioperative Femorotibial Rotational Change is Associated with Worsened Intraoperative Knee Kinematics and Poorer Clinical Outcomes in Total Knee Arthroplasty

PRESENTER: Kohei Kawaguchi

Oral hypofunction is associated with reduced skeletal muscle mass index in elderly women with end-stage knee osteoarthritis: a clinical assessment adjusted for objectively measured physical activity

PRESENTER: Yusuke Horita

18:30-21:00 Young Investigator Chill Out

Sake Brewery Tour at Dogo Ichie

18:30-21:00 Presidential Dinner

By invitation only

Friday, June 12th

08:00-08:20 Session 13: Special Poster Teasers I

LOCATION: Main Hall (5F)

08:00 **IMPACT OF DYNAMIC ALIGNMENT CLUSTER PRESERVATION ON EARLY CLINICAL OUTCOMES IN NAVIGATED TOTAL KNEE ARTHROPLASTY UNDER CONTROLLED LOAD**

PRESENTER: Laurent Angibaud

08:03 **INTER-OBSERVER RELIABILITY DURING INTRA-OPERATIVE PASSIVE KNEE FLEXION: A HUMAN DONOR STUDY**

PRESENTER: Saskia A. Brendle

08:06 **CLINICAL OUTCOMES AND SOFT TISSUE LAXITY AFTER ROBOT-ASSISTED FUNCTIONALLY AND MECHANICALLY ALIGNED TOTAL KNEE ARTHROPLASTY**

PRESENTER: Yohei Naito

08:09 **A Novel Modified Tibial Knee Center Improves the Accuracy of Posterior Tibial Slope in CT-Based Robotic-Arm Assisted Total Knee Arthroplasty**

PRESENTER: Ho-Jung Jung

08:12 **Accuracy of Acetabular Cup Placement Using the CT-Based Navigation System Ortoma Treatment Solution in Total Hip Arthroplasty**

PRESENTER: Takashi Imagama

08:30-09:30 Session 14: Morning Seminar 1

sponsored by Johnson & Johnson K.K.

CHAIR: Tamon Kabata

LOCATION: Main Hall (5F)

08:30 **CT-Based Navigation in Supine Total Hip Arthroplasty: Practical Utility from a User Perspective**

PRESENTER: Miwa Tamayose

09:00 **CT-Based Navigation in Lateral Decubitus Total Hip Arthroplasty: A Breakthrough with Next-Generation Technology**

PRESENTER: Takuya Kusakabe

09:40-10:50 Session 15: Kinematics and Range of Motion

LOCATION: Main Hall (5F)

09:40 **Robotic-Arm Assisted Bicompartamental Knee Arthroplasty Demonstrates More Physiological Gait Despite Similar Patient-Reported Outcomes Compared With Total Knee Arthroplasty**

PRESENTER: Do Weon Lee

09:50 **Influence of Three-Dimensional Hip Parameters Change on Lower Limb Kinematics and Kinetics During Gait Following Total Hip Arthroplasty**

PRESENTER: Shinichi Ueki

10:00 **Population Specific Optimization of Glenosphere Size in Reverse Shoulder Arthroplasty Based on Sex and Height: A Japanese Statistical Shape Model Based Computational Simulation Study**

PRESENTER: Ryosuke Iio

10:10 **Analysis of safe zones for anterior overhang and cup coverage**

PRESENTER: Luisa Berger

10:20 **Intra-observer repeatability of intra-operative passive knee kinematics – a human donor study**

PRESENTER: Ronja Schierjott-Hermle

10:30 **SCAPULOHUMERAL RHYTHM REPRODUCTION USING AN UPPER-LIMB MUSCULOSKELETAL MODEL WITH PHYSICAL SCAPULOTHORACIC CONTACT**

PRESENTER: Kenta Hara

10:40 **Sex-specific anatomy and when to choose a 32-mm glenosphere in reverse shoulder arthroplasty: a 3D CT simulation and ROC analysis**

PRESENTER: Katsuhiko Shimono

11:00-12:00 Session 16: Luncheon Seminar 2

sponsored by Stryker Japan K.K.

CHAIR: Wataru Ando

LOCATION: Main Hall (5F)

11:00 **From Standard Angles to Patient-Specific Positioning: CT-Based Robotics in THA, TKA, and PKA**

PRESENTER: Nobuhiko Sugano

12:00-13:00 Lunch Break

12:30-12:50 Session 17: Sponsored Workshop III

LOCATION: Conference Room 1 (4F)

13:00-14:10 Session 18: AI for CAOS

LOCATION: Main Hall (5F)

13:00 **Automatic Quality Assessment and Uncertainty Localization on AI-generated digital twins of the shoulder**

PRESENTER: Garance Thoviste

13:10 **CIRCUMFERENTIAL ANALYSIS OF ILIOPSOAS IMPINGEMENT RISK USING AI-BASED MUSCLE SEGMENTATION AND THE RADAR CHART METHOD: A CUP PLACEMENT SIMULATION STUDY**

PRESENTER: Sakura Kuniyoshi

13:20 **ACCESSIBLE SARCOPENIA SCREENING VIA MUSCLE VOLUME ESTIMATION FROM THREE-VIEW LONG-LENGTH LOWER-EXTREMITY RADIOGRAPHS**

PRESENTER: Hyunwoo Park

13:30 **Artificial Intelligence Guided Segmentation of Novel CT-Based Navigation Produced Quick Preoperative Preparation and Accurate Cup Placement in Total Hip Arthroplasty**

PRESENTER: Kunihiko Tokunaga

13:40 **3D CT Volume Reconstruction from a Single Intraoperative Hip Fluoroscopy Image**

PRESENTER: Akira Fujita

13:50 **Automated Segmentation of the Sacral Canal for Large-Scale Analysis of Demographic, Densitometric and Morphometric Sacral Measurements in CT Images**

PRESENTER: Mazen Soufi

14:00 **Automatic Bones Segmentation for Total Ankle Arthroplasties Planning and Navigation**

PRESENTER: Garance Thoviste

14:20-15:30 Session 19: Imaging, Morphometry, and 3D Modeling

LOCATION: Main Hall (5F)

14:20 **Whole-Body Low Muscle Mass Screening Using a Leg CT-Derived Muscle Index**

PRESENTER: Sotaro Kono

14:30 **ASSOCIATION OF PLASMA PROTEOMIC SIGNATURES WITH THIGH MUSCLE ADIPOSITY**

PRESENTER: Hyun-Bin Kim

14:40 **Statistical Pose Model Accurately Reproduces Forearm Pronation-Supination: Cadaveric Validation**

PRESENTER: Paul-Emmanuel Edeline

14:50 **3D Virtual Surgical Planning and Patient Specific Guide Design for Lapidus Surgery in a Hallux Valgus Patient**

PRESENTER: Gabriëlle Tuijthof

15:00 **3D Reconstruction from Arthroscopic Images using NeRF: a preliminary in-silico study**

PRESENTER: Hermine Kitio Tsamo

15:10 **Advancing a Tracked 2D Ultrasound System for Assessing Dysplasia Metrics Towards Clinical Deployment**

PRESENTER: Alix Savard

15:40-16:50 Session 20: Surgical Outcomes & Factors Analysis

LOCATION: Main Hall (5F)

15:40 **Association Between Oral Function and Postoperative Physical Activity Following Total Hip Arthroplasty: A Prospective Observational Study**

PRESENTER: Tomofumi Kinoshita

15:50 **Factors influencing patient-reported outcome measures two years after handheld robotic assisted bi-cruciate stabilized total knee arthroplasty**

PRESENTER: Shine Tone

16:00 **Femoral Stem Alignment and Post-operative Patient Satisfaction in Total Hip Arthroplasty Using Computer-Assisted Equipment**

PRESENTER: Naoto Nakayama

16:10 **ACCURACY VERIFICATION OF AN AI-BASED NAVIGATION SYSTEM FOR THA IN SEVERE HIP DYSPLASIA: IMPACT OF AUTOMATED SEGMENTATION SPEED AND ILIAC CREST REGISTRATION**

PRESENTER: Ryuichiro Okuda

16:20 **IMPACT OF THE SURGICAL WORKFLOW AND TECHNOLOGY CHANGE ON EARLY CLINICAL OUTCOMES IN TOTAL KNEE ARTHROPLASTY**

PRESENTER: Laurent Angibaud

16:30 **Patient-Specific Ti-6Al-4V Lattice Implants for Critical-Sized, Weight-Bearing Limb Reconstruction: Average 45-months Surgical, Oncological and Functional Follow-up**

PRESENTER: Solomon Dadia

16:40 **HOW DO WE MEASURE WHAT WE ACHIEVE: ACCURACY OF 3D SURGICAL PLANS IN COMPLEX ORTHOPEDIC PROCEDURES**

PRESENTER: Jasper Gerbers

17:00-18:00 Session 21: CAOS General Assembly

LOCATION: Main Hall (5F)

18:30-21:00 Gala Dinner

Gala Dinner and Tuna Dissection Show at ANA Crown Plaza Hotel Matsuyama

Saturday, June 13th

08:00-08:20 Session 22: Special Poster Teasers II

LOCATION: Main Hall (5F)

08:00 **Using A Novel Patient-Specific Guide with Radiopaque Alignment for Sacroiliac Joint Fusion: A Case Series**

PRESENTER: Nick Kampkuiper

08:03 **Side-to-side differences in femoral neck bone mineral density in patients undergoing surgery for adult spinal deformity**

PRESENTER: Keisuke Uemura

08:06 **Navigation accuracy according to cup geometry and fixation method in total hip arthroplasty**

PRESENTER: Shinnosuke Gosho

08:09 **Does an Enhanced Workflow Improve Clinical Outcomes in MAKO Total Hip Arthroplasty? A Comparative Study with the Express Workflow**

PRESENTER: Jihyo Hwang

08:12 **Learning Curve for rTSA Navigation Procedure With a Single System - A Large Scale Study**

PRESENTER: Garance Thoviste

08:30-09:30 Session 23: Morning Seminar 2

sponsored by Smith & Nephew K.K.

CHAIR: Yasuo Niki

LOCATION: Main Hall (5F)

08:30 **Restoring the joint line in TKA - from implant design to enabling technology -**

PRESENTER: Masakazu Ishikawa

09:00 **"Femorotibial Rotational Alignment and Kinematics in Total Knee Arthroplasty What Constitutes Optimal Femorotibial Rotational Alignment?"**

PRESENTER: Kohei Kawaguchi

09:40-11:00 Session 24: Trauma & Reconstructive surgery

LOCATION: Main Hall (5F)

09:40 **Use of Custom 3D-Printed Titanium Implants for Partial Joint Resurfacing Following Traumatic Injuries: A Preliminary Report**

PRESENTER: Yoram Weil

09:50 **Correction Osteotomies with 3D Guides: Does Surgical Experience Affect Operative Accuracy?**

PRESENTER: Mirka Buist

10:00 **Biomechanical and Computational Validation of PatientSpecific Implants for Schatzker IV Tibial Plateau Fractures**

PRESENTER: Mirka Buist

10:10 **Comparison of lower limb muscle characteristics, femoral morphology, and bone mineral density between femoral neck and intertrochanteric fractures using AI-based CT analysis**

PRESENTER: Tomoki Asano

10:20 An automated Statistical Shape Model workflow of the Craniomaxillofacial Complex for Shape Reconstruction

PRESENTER: Gabrielle Tuijthof

10:30 From Imaging to Implant Design: A Fully In-Hospital Computer-Assisted Workflow for Large Bone Reconstruction

PRESENTER: Eran Golden

10:40 A Hybrid Physical–Digital Framework for Annotated Fracture Reduction Data Evaluated using Clinically Relevant 3D metrics

PRESENTER: Basile Longo

10:50 Accurate Guidewire Placement for Scaphoid Fracture Fixation Using Biplanar X-Rays

PRESENTER: Ashvin Moro

11:10-12:20 Session 25: Navigation & Surgical Technique Innovation

LOCATION: Main Hall (5F)

11:10 A Planar Probe More Repeatably Measures Bone Cut Planes than Stylus-Based Digitization

PRESENTER: Liam Murdock

11:20 Effect of skin incision orientation on acetabular cup placement accuracy and precision in anterolateral supine approach total hip arthroplasty using computed tomography-based navigation

PRESENTER: Tetsuro Tani

11:30 Innovative Technique for Less Invasive Cement Removal in Total Hip Arthroplasty Revision with Patient Specific Surgical Guides

PRESENTER: Gabriëlle Tuijthof

11:40 Accuracy and precision of planned glenoid guide-pin placement in reverse shoulder arthroplasty: a cadaveric comparison of fluoroscopy-guided freehand technique, patient-specific instrumentation, and navigation

PRESENTER: Hiroshi Kiyomatsu

11:50 Recent Advances in Atlantoaxial Fixation: Minimizing Invasiveness While Enhancing Construct Stability

PRESENTER: Takamitsu Tokioka

12:00 Total hip arthroplasty using antero-lateral supine approach with CAOS ~ Optimal placement of prosthesis in cases of excessive femoral antetorsion ~

PRESENTER: Takuma Yamasaki

12:10 IMPACT OF INSTRUMENTED GAP-BALANCING TECHNIQUE ON FUNCTIONAL ALIGNMENT TOTAL KNEE ARTHROPLASTY IN SEVERE VARUS DEFORMITY

PRESENTER: Hiroshi Watanabe

12:30-13:00 Session 26: Award & Closing Ceremony

LOCATION: Main Hall (5F)

REGISTRATION FEES

| Registration fees | Early Bird Expires 11:59 pm JST May 10th, 2026 | Late Fee From 0:00 am JST May 11th, 2026 | On site |
|---------------------|------------------------------------------------------|------------------------------------------------|------------|
| Member CAOS | JPY 90,000 | JPY100,000 | JPY110,000 |
| Student Member CAOS | JPY 30,000 | JPY 45,000 | JPY 55,000 |
| Non-Member | JPY110,000 | JPY120,000 | JPY130,000 |
| Student Non-Member | JPY 45,000 | JPY 55,000 | JPY 65,000 |
| Gala Dinner | JPY 5,000 | JPY 6,000 | JPY 7,000 |

- Members of the Japanese Orthopaedic Association and the Japanese Society for Computer Aided Surgery may register at the CAOS member rate.
- All payments must be made in Japanese yen because of payment system limitations.

ONSITE REGISTRATION

On-site registration can only be completed online.

A PC will be available for registration at the registration desk; however, to avoid congestion, we recommend completing your registration and payment in advance on your own device before arriving.

When you arrive at the registration desk, please present your issued QR code.

Secretariat of CAOS International 2026



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