

9th International RSA Meeting

Vancouver, Canada

June 10-11, 2025

Program



Program at a glance

The conference venue is the Vancouver Convention Centre East (Canada Place). Breaks and meals will take place in the South Foyer, sessions will be held in Room 1, both on the second floor of the East building

Conference badges can be picked up 7:00-17:00 on June 10 in the South Foyer.

ePosters are available to browse during all breaks.

	Tuesday June 10	Wednesday June 11
	Breakfast	
8:00	Welcome	Breakfast
	Keynote	Welcome
9:00	Hip 1	Keynote
10:00	Poster I	Hip 2
	Break	
11:00	Knee 1	Poster III
		Break
12:00		Upper extremity & spine
	Lunch	Next meeting announcement
13:00		Lunch
	Methods	
14:00	Poster II	Knee 2
	Break	Awards & closing ceremony
15:00		Break
	Wear & trauma	Annual General Meeting
16:00		
	Happy Hour	Board meeting
Late	Conference Dinner	COA opening ceremony

Welcome

Dear attendees,

We are happy to welcome you back to Canada, a mere 6,000 km away from where the first International RSA meeting was held in 2009. We have seen transformative change in our field over the last 15 years and we see this by the great and varied work that will be presented over the next two days. We have programmed ample time for breaks to network and socialize, including during our sunset conference dinner in iconic Stanley Park.

The Vancouver Convention Centre is situated on the ancestral, unceded territories of the Musqueam, Squamish, and Tsleil-Waututh peoples. We gratefully acknowledge and appreciate the privilege to operate on these lands, and we recognize the enduring presence and stewardship of these peoples.

We enjoyed the rapid-fire poster sessions from the last conference and programmed these in this session as well to allow each presenter two minutes to highlight their results before coffee breaks. The full ePosters are available to view at each break and we encourage attendees to ask their questions to the presenters during these breaks. We also follow the Canadian Orthopaedic Association meeting standard in which there is a longer discussion after every three talks, rather than brief questions after each individual presentation.

We hope you enjoy the conference and everything Canada has to offer.

On behalf of the organizing committee,
Trevor Gascoyne

Organizing committee

- Trevor Gascoyne, Chair
- Brent Lanting
- Elise Laende
- Matthew Teeter
- Christiaan Righolt

On behalf of the Canadian RSA Network

RSA  *Network*

Sponsors

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Lunch sponsor



HIP INNOVATION
TECHNOLOGY

Program Monday June 9, 2025

18:00-close Reception

Steamworks Brewpub 375 Water St.

Program Tuesday June 10, 2025

7:15-8:00	Breakfast	South Foyer
8:00-8:15	Welcome & opening ceremony	Room 1
8:15-9:00	Keynote	Room 1

Moderator: Matthew Teeter

Sprinting towards a clinically practical, workflow efficient approach to quantify dynamic joint motions
Scott Banks

9:00-10:00	Hip 1	Room 1
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Moderators: Brent Lanting & Trevor Gascoyne

9:00	P1	Validation of early RSA acetabular implant migration thresholds for long-term aseptic loosening with international registry studies <i>Chan Hee Cho</i>
9:07	P2	Estimating the migration patterns of acetabular implants with the use of early RSA data <i>Chan Hee Cho</i>
9:14	P3	Migration in total hip arthroplasty with G7 BiSpherical acetabular system combined with the Global Tissue Sparing (GTS) stem: a radiostereometric study with 5 years of follow-up <i>JH Pasma</i>
9:21		Discussion
9:30	P4	Migration in total hip arthroplasty with the Maxera Acetabular System compared to the Allofit Acetabular Cup System: a radiostereometric study with 5 years of follow-up <i>JH Pasma</i>
9:37	P5	Custom triflange acetabular components result in a stable fixation in majority of revision hip arthroplasty cases with large acetabular bone defects. Preliminary short-term RSA results of 15 multicenter cases. <i>D Broekhuis</i>
9:44	P6	Quantifying component impingement in total hip arthroplasty: In vivo analysis of neck-liner distances during activities of daily living <i>Matthew Teeter (Shahnaz Taleb)</i>
9:51		Discussion

10:00-10:15	Poster session I	Room 1
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Moderators: Brent Lanting & Trevor Gascoyne

10:00	E1	Model-based wear measurement on plain radiographs enables early monitoring of TKA inlay wear <i>C Emonde</i>
10:02	E2	Comparison of the in vivo stability of 2 cementless TKA designs using CT micromotion analysis - A randomized controlled trial <i>Frank-David Øhrn,</i>
10:04	E3	The importance for precision to harmonize CT measurements in migration studies. A randomized controlled clinical trial <i>E Kristoffersson</i>
10:06	E4	Five Year Follow-Up of a Gap Balancing and Measured Resection Surgical Technique with Radiostereometric Analysis and Weight-Bearing Computed Tomography <i>Rebecca Hext</i>

10:08	E5	Longitudinal assessment of impingement risk following total hip arthroplasty through the direct anterior approach <i>Matthew Teeter (Shahnaz Taleb)</i>	
10:15-10:45	Coffee break		South Foyer
10:45-12:15	Knee 1		Room 1
		Moderators: Petra Heesterbeek & Maaïke de Bondt	
10:45	P7	Five-year migration of uncemented femoral components in total knee arthroplasty with either highly cross-linked or conventional polyethylene inserts: a blinded randomized controlled trial using radiostereometric analysis <i>Ruud de Ridder</i>	
10:52	P8	Tibial Component Migration and Metal Ion Release of a Coated and Non-Coated Implant Design <i>Rebecca Hext</i>	
10:59	P9	Contact Kinematics and Tibial Component Migration of a Medial-Pivot Total Knee Arthroplasty Design <i>Rebecca Hext</i>	
11:06		Discussion	
11:15	P10	What is the long-term pattern of migration of the individual implant in cemented and uncemented TKA? <i>Radoslaw Wojtowicz</i>	
11:22	P11	Time-zero motion is not related to the bone mineral density in well-fixed uncemented tibial baseplates <i>Fernando J Quevedo Gonzalez</i>	
11:29	P12	Tibial component migration and inducible displacement for cruciate retaining and posterior stabilized implants in cemented total knee arthroplasty <i>Elise Laende</i>	
11:36		Discussion	
11:45	P13	Equal tibial and femoral component fixation of a mobile-bearing and fixed-bearing lateral unicompartmental knee arthroplasty with 5-years follow-up <i>Andreas Bidstrup Hovmark</i>	
11:52	P14	The preoperative gait pattern is associated with migration of total knee arthroplasty - an exploratory radiostereometric study with 2 years follow-up <i>Emil Toft Petersen</i>	
11:59	P15	Severe knee osteoarthritis increases the risk of continuous migration of cementless tibial implants. A prospective clinical cohort RSA study of 928 patients <i>Johannes Marsay Dal</i>	
12:06		Discussion	
12:15-13:15	Lunch		South Foyer
13:15-14:15	Methods		Room 1
		Moderators: Matthew Teeter & Bart Kaptein	
13:15	P16	Comparison of Two CT-based Radiostereometric Analysis Systems <i>Maaïke R. de Bondt</i>	

13:22	P17	CT-based radiostereometric analysis (CT-RSA) Validation: in vivo agreement between Volumetric Matching Micromotion Analysis (V3MA) and RSA for a femoral prosthesis in TKA <i>Jessie Robertson</i>
13:29	P18	Dose reduction does not impact precision of CT-RSA in total knee arthroplasty – a clinical trial <i>Fredrik Bru</i>
13:36		Discussion
13:45	P19	Evaluation of migration analysis with AI-based CT-RSA and preoperative 3D-planning in total hip arthroplasty <i>Albin Christensson</i>
13:52	P20	A single CT is enough for CT-based radiostereometric analysis <i>Emil Toft Petersen</i>
13:59	P21	VoluMetric Matching Micromotion Analysis (V3MA) enables accurate quantification of implant inducible displacement between repeat CT examinations <i>Bart Kaptein</i>
14:06		Discussion

14:15-14:30 Poster session II

Room 1

Moderators: Matthew Teeter & Bart Kaptein

14:15	E6	CT-based radiostereometric analysis (CT-RSA) Validation: in vitro precision of Volumetric Matching Micromotion Analysis (V3MA) and impact of image segmentation for a femoral prosthesis in TKA <i>Jessie Robertson</i>
14:17	E7	2y CT-RSA results in revision total hip patients – the PROUD study <i>Olof Sandberg</i>
14:19	E8	Preliminary Results of the Accuracy of CT-RSA of the TOUCH® Dual Mobility TMC Prosthesis: migration measurements in an anatomic specimen study <i>R. Oomen</i>
14:21	E9	Migration in unicompartmental knee arthroplasty with the Persona® Partial Knee: a radiostereometric study with 5 years of follow-up <i>JH Pasma</i>
14:23	E10	CT-RSA is a suitable replacement for RSA in evaluating migration of tibial implants – phantom study of accuracy <i>Lars Engseth</i>
14:25	E11	The accuracy and precision of CT-RSA in joint arthroplasty: a systematic literature review <i>Bart Kaptein (Nienke de Laat)</i>

14:30-15:00 Coffee break

South Foyer

15:00-16:00 Wear & trauma

Room 1

Moderators: Trevor Gascoyne & Stephan Rohrl

15:00	P22	Wear in total hip arthroplasty with the Regenerex cup: a radiostereometric study with 10 years of follow-up <i>JH Pasma</i>
15:07	P23	The effect of implant, surgical and patient factors on the long-term wear of highly cross-linked polyethylene liners <i>Stuart Callary</i>

15:14	P24	The influence of surgical approach on acetabular cup migration and wear in total hip arthroplasty – a multi-centre radiostereometric analysis study <i>Trevor Gascoyne (Edward Vasarhelyi)</i>
15:21		Discussion
15:30	P25	Total hip arthroplasty for acute acetabular fractures through the replace-in-situ philosophy: radiographic assessment of cup stability <i>John Abrahams</i>
15:37	P26	Enhancing torsional stability with interlocking plates in undisplaced femoral neck fractures – a randomized controlled trial using radiostereometric analysis <i>Magnus Hogevoid</i>
15:44		Discussion

16:00-17:00 Happy hour

South Foyer

Catch up with old friends and make new friends to discuss your RSA questions, difficult analyses, challenges, and anything else that comes to mind.

18:30-22:30 Conference dinner

Teahouse in Stanley Park

The Teahouse is located at 7501 Stanley Park Drive, Vancouver at Ferguson Point in Stanley Park. The restaurant is 4.5 km from the conference centre and can be reached by walking (50 minutes), taxi and ridesharing services.

18:30	Drinks
19:30	Dinner
21:00	After party

Program Wednesday June 11, 2025

8:00-8:50 Breakfast South Foyer

8:50-9:00 Welcome Room 1

9:00-9:45 Keynote Room 1

Moderator: Elise Laende

Health Data and Multi-jurisdictional Research Collaborations *Kim McGrail*

9:45-10:45 Hip 2 Room 1

Moderators: Christiaan Righolt & Stuart Callary

9:45 P27 **CT with Implant Movement Analysis in the Work-up of Painful Total Hip Prostheses**

Scott Nodzo (Thomas Listopadzki)

9:52 P28 **Migration patterns of femoral stems: a systematic review and meta-analysis of RSA studies**

L. van der Water

9:59 P29 **Stem migration and bone density at 10 years – a randomized radiostereometry and DXA study on a short uncemented hip stem with and without a collar**

Sebastien Daudi

10:06 Discussion

10:15 P30 **Similar femoral stem fixation but less metaphyseal loss of bone mineral density with a taper-wedge design and diaphyseal bone preservation with a long and round-tapered design. A 5-year randomized RSA and DXA study of 50 patients.**

Peter Bo Jorgensen

10:22 P31 **The Effect of Surgical Approach on Migration of a Novel Short Hip Stem – A Radiostereometric Analysis Study**

Thomas Turgeon

10:29 P32 **Reverse Total Hip Arthroplasty Fixation Stability at Five Years: A Radiostereometric Analysis (RSA) Study**

Thomas Turgeon

10:36 Discussion

10:45-11:00 Poster session III Room 1

Moderators: Christiaan Righolt & Stuart Callary

10:45 E12 **Migration in total hip arthroplasty with the Global Tissue Sparing (GTS) stem compared with uncemented HA coated Taperloc stem: a radiostereometric study with 5 years of follow-up**

JH Pasma

10:47 E13 **Precision of an automated volume-based CT radio-stereometric analysis in a porcine cadaver**

M. Acke

10:49 E14 **Multi-center RSA study of a novel cementless total knee replacement**

Trevor Gascoyne (Douglas Naudie)

10:51 E15 **Tibial Baseplate Orientation Which Minimizes Registration Error in Model-Based RSA is Not Aligned with the Anatomical Coordinate System**

Rubiana Monteiro

11:00-11:30 Coffee break South Foyer

11:30-12:30 Upper extremity & spine

Room 1

Moderators: Maiken Stilling, Wilhelm Mustad

11:30	P33	One-year follow-up of 20 patients undergoing the Latarjet procedure: A biomechanical study during an apprehension-relocation test measured with radiostereometry <i>Josephine Olsen Kipp</i>
11:37	P34	Evaluation of glenohumeral joint kinematics following the Eden-Hybinette procedure with tricortical iliac crest bone graft and the Latarjet procedure. A dynamic radiosteometric cadaver study. <i>Josephine Olsen Kipp</i>
11:44	P35	Photon-counting detector CT provides high precision quantification using CT-RSA in total wrist implant migration - at a lower radiation dose <i>Olof Sandberg (Gustav Lind)</i>
11:51		Discussion
12:00	P36	Good fixation of Freedom wrist arthroplasty components in a mixed cohort of rheumatoid arthritis and osteoarthritis patients. A radiostereometry study with 2 years follow-up. <i>Maiken Stilling</i>
12:07	P37	Accuracy and Precision of CT-RSA Migration Measurements of the CapFlex PIP Prosthesis Compared to MBRSA: an Anatomic Specimen Study <i>R. Oomen</i>
12:14	P38	Quantification of fusion in cervical spine using induced displacement CT-RSA <i>Olof Sandberg</i>
12:21		Discussion

12:30-12:40 Announcement of the next meeting

Room 1

12:40-13:45 Lunch

South Foyer

13:45-14:35 Knee 2

Room 1

Moderators: Elise Laende & Jonathan Jurgens-Lahnstein

13:45	P39	Denosumab decreases the subsidence of cementless tibial implants by suppression of bone resorption: A randomized, double-blinded RSA study in 54 patients with 5 years follow-up <i>Karina Norgaard Linde</i>
13:52	P40	Association between bone mineral density and implant migration of cemented and cementless tibial implants: A prospective clinical cohort RSA study in 397 patients <i>Karina Norgaard Linde</i>
13:59	P41	Antiresorptive treatment reduces the subsidence of tibial implants. A prospective clinical RSA study of 961 patients <i>Mohammad Ali Karim</i>
14:06		Discussion
14:15	P42	Tibial component micromotion of a bicruciate-retaining total knee arthroplasty correlated with early inducible displacement <i>Kelly Mills</i>
14:22	P43	Construct stability of revision total knee arthroplasty with tibial cones: 2-years of radiostereometric analysis (RSA) <i>Petra Heesterbeek</i>

14:29	P44	Evaluation of the association between inducible micromotion of unicompartmental knee arthroplasty and patient-reported outcomes. A static and dynamic RSA study. <i>Jonathan Hugo Jurgens-Lahnstein</i>	
14:36		Discussion	
14:45-15:00		Closing ceremony	Room 1
14:45		Closing remarks <i>Trevor Gascoyne</i>	
14:50		Awards Best Papers Award – <i>Presented by Elise Laende</i> NRT Award – <i>Presented by Maiken Stilling</i> Lars Weidenhielm Award – <i>Presented by Stephan Rohrl</i> Edward Valstar Award – <i>Presented by Bart Kaptein</i>	
15:00-15:30		Break	South Foyer
15:30-16:30		iRSA Annual General Meeting Open to all attendees as meeting registration includes iRSA membership	Room 1
16:30-17:30		iRSA Board Meeting Board members only	Room 1
17:00-20:30		COA CORS CORA Annual Meeting	
17:00		Opening Ceremonies <i>East Ballroom B/C</i>	
18:30		Welcome Reception <i>Atrium Foyer</i>	