



ICTMS 2019

Tomography of Materials & Structures

Cairns, Australia. July 22–26

Australia has a strong tomography community with a long commitment to GeoX and ICTMS, with research groups active in theory, algorithms and hardware. Australian developments include lab-based micro and ultra-micro CTs (some commercialised e.g. Gatan XuM, FEI Heliscan); imaging and XRF beamlines at the Australian Synchrotron (AS), a recently commissioned neutron imaging facility, high-end TEM systems, along with numerous applications groups with sophisticated 3D analysis techniques. We hope that hosting the next ICTMS in Australia will enhance involvement in ICTMS (and intACT in general) by this community in future, and encourage increased involvement from the Asia-Pacific region simply by being more accessible. It is great timing for AS which has received a new round of funding and is expected to announce shortly the addition of a micro-CT beamline that will be nearing completion in 2019.

We have selected Cairns as the location; a beautiful destination with diverse attractions, a well set up conference venue, and easily accessible (in fact several hours less travelling than Sydney or Melbourne). Cairns is located in the north-eastern corner of Australia. It is a popular tourist hub because of its tropical climate and the islands, rainforests and reefs on its doorstep. From Cairns you can swim, snorkel, dive and sail the World Heritage-listed Great Barrier Reef; immerse yourself in the World Heritage Wet Tropics Rainforest; or take the scenic railway to the tranquil, butterfly-fringed village of Kuranda and cruise amongst colourful parrots, platypus and fresh water crocodiles.

The daytime temperature is around 25°C (77°F) for the proposed dates of Monday July 22 - Friday July 26. We have selected this time period to give delegates the option of a family holiday over the summer vacation period of the northern hemisphere.



Great Barrier Reef



Rainforest



The venue: Pullman Cairns International Hotel

Address: 17 Abbott St, Cairns, Australia.

Phone: (+61)7 4031 1300

The Pullman hotel is conveniently located in the Cairns CBD close to restaurants and a number of tourist attractions. The hotel has all the facilities required to host the conference and is available for the proposed conference week. We will schedule some time for delegates to explore Northern Queensland. The Pullman hotel has a tour desk from which to organise many excursions; it is close to the main departure point for tours to the Great Barrier Reef.

Accessibility

Cairns International Airport is Australia's gateway to the Asia Pacific and is located only 10 minutes from the centre of Cairns. A number of international flights land at Cairns, including flights from Singapore and Japan (Jetstar), Hong Kong (Cathay Pacific, Qantas) and North America via Auckland (United). There are also many domestic connections to Cairns for international flights that arrive in other Australian cities, e.g. Brisbane, Sydney or Melbourne.





Cairns has a well developed tourist infrastructure with a multitude of hotels and guest houses to serve every budget. Most of the accommodation options, from 5 star hotels to backpacker's lodges, are within a walking distance to the compact city core and the conference venue. Local attractions include botanical gardens, art galleries rich in aboriginal art, promenades, shopping centres, restaurants and markets.

Conference themes

The organisers would like to encourage submission of abstracts on all tomography probes, (e.g., X-ray, Neutron, electron, THz, optical, acoustic, electrical) specifically surrounding the following themes.

- Hardware and acquisition techniques for tomography
- Advances in tomographic image reconstruction
- Correlative tomography; techniques and applications
- 3D image analysis and modelling techniques to further the understanding of: i) construction materials e.g. timber and concrete; ii) advanced-materials science e.g. composites, foams and engineered tissue; iii) biological structures; iv) geological structures; v) topology of 3D materials
- in-situ experiments; differential and 4D tomography

Workshops

- **Drishti** volume exploration and presentation software (anuf.anu.edu.au/Vizlab/drishti)
- **ASTRA** MATLAB and Python toolbox of high-performance GPU primitives for tomography. (www.astra-toolbox.com)
- **Avizo** 3D visualisation and analysis software (<https://www.fei.com/software/avizo-for-materials-science/>)

Keynote speakers (accepted invitations)

- David Paganin, Monash Uni.: Coherent X-ray optics
- Dorthe Wildenschild, Oregon State Uni.: Application to transport properties in porous media
- Anders Kaestner, PSI: Neutron tomography techniques/applications
- Stuart Stock, Northwestern Uni.: Tomography in biology

Local organising committee

With the conference located in Cairns, we have considered "local" to mean Australian. Members of the local organising committee represent most of the major X-ray, neutron and electron tomography centers in Australia with expertise spanning theory, experiments and applications.

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|---------------------------|------------------------|---|
| Chairs: | - Anna Herring, ANU | - Egon Perilli - FlindersUni |
| - Andrew Kingston, ANU | - Ulf Garbe, ANSTO | - Matt Weyland – MCEM |
| - Mohammad Saadatfar, ANU | - Martin DeJonge, AS | |
| | - Sheri Mayo - CSIRO | - Dominique Bernard, IntACT President |
| Members: | - Ryan Armstrong, UNSW | - Patric Jacobs, IntACT General Secretary |
| - Adrian Sheppard, ANU | - Phil Evans - USC | - Wesley DeBoever, IntACT Dep. Comms. Officer |

Scientific committee

The scientific committee will be assembled from those of the previous ICTMS committees with the addition of members from the Asia-Pacific region.

Budget (including approximate registration fees)

A tentative but comprehensive budget, developed in communication with the Pullman hotel conference venue, has been attached. Given estimated sponsorship and with a full conference fee of AU\$800 (EU540, US\$600) and student fee being half that we can comfortably host 200-300 delegates, including 6 keynote speakers, a welcome reception, morning and afternoon tea, and a conference dinner. This seems a reasonable fee, however, we will continue to seek additional sponsorship to reduce this further.

ICTMS

Pullman Hotel, Cairns

22-26th July 2019

INCOME	Number	Number	Price	Line Total	Delegate No <u>200</u>	Delegate No <u>300</u>
Sponsorship						
Research Sch. Phys. & Eng.					\$5,000	\$5,000
College Phys. & Math. Sci.					\$5,000	\$5,000
Applied Math. Dept.					\$5,000	\$5,000
FEI					\$10,000	\$10,000
Stjepan Marcelja fellowship					\$12,000	\$12,000
ANSTO					\$5,000	\$5,000
MSI					\$5,000	\$5,000
Ian Potter foundation					\$10,000	\$10,000
Registration						
Invited						
Delegate Registration	125	200	\$800		\$100,000	\$160,000
Student /ECR Rego	75	100	\$400		\$30,000	\$40,000
Total Registrations	<u>200</u>	<u>300</u>				
TOTAL INCOME					<u>\$187,000</u>	<u>\$257,000</u>
EXPENSES						
	Number		Price	Line Total		
Speakers Keynote flight	6		\$3,000		\$18,000	\$18,000
Speakers Keynote accommodation	6		\$1,000		\$6,000	\$6,000
Speakers Keynote registration	6		\$800		\$4,800	\$4,800
Venue Hire - Mon-Fri Grand Ballroom						
Welcome reception Pool Deck			\$600		\$600	\$600
Tully 1,2,3	4		\$1,200		\$4,800	\$4,800
Catering Welcome Reception			\$34		\$6,800	\$10,200
Beverages -Welcome Rec consump					\$4,000	\$4,000
Catering package Mon to Fri			\$59		\$47,200	\$70,800
Dinner			\$65		\$13,000	\$19,500
Dinner Bev 4hr package			\$45		\$9,000	\$13,500
Poster Session Food and Beverage					\$6,000	\$6,000
Transport	2					
Other Expenses						
A/V equip	30,000				\$30,000	\$30,000
Gifts			\$20		\$0	\$0
Abstract Booklet Printing					\$5,000	\$5,000
Poster Boards	50		\$80		\$4,000	\$4,000
Workshop satchels			\$12		\$2,400	\$3,600
Nametags					\$1,000	\$1,000
Exhibition Expenses	10		\$400		\$4,000	\$4,000
Exhibition Build	10		\$300		\$3,000	\$3,000
Website and online registration fees ANU					\$3,000	\$3,000
Freight					\$1,000	\$1,000
Manuscripts						
Stationery						
Contingency					\$10,000	\$10,000
TOTAL EXPENSES					<u>\$183,600</u>	<u>\$222,800</u>
PROPOSED PROFIT/LOSS					<u>\$3,400</u>	<u>\$34,200</u>