



# **TRUSTED AUTONOMOUS SYSTEMS**

**Accelerating Trusted Autonomous Systems Symposium**

**20 April - 22 April 2021**

**The Ville, Townsville, Queensland**

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## ABOUT THE SYMPOSIUM

Trusted Autonomous Systems is Australia's first Defence Cooperative Research Centre and is uniquely equipped to deliver world-leading autonomous and robotic technologies to enable trusted and effective cooperation between humans and machines. Our aim is to improve the competitiveness, productivity and sustainability of Australian industry.

Trusted Autonomous Systems, together with its participants and the Department of Defence, is developing the capacity of Australia's defence industry to acquire, deploy and sustain the most advanced autonomous and robotic technology.

At this year's Symposium there will be a breadth of perspectives on offer and interactions for those in academia and industry to senior Australian Defence Force (ADF) in leadership roles in Robotics, Autonomous Systems and Artificial Intelligence (RASAI). The Symposium is focussed towards a physical audience with a comprehensive technical capability to support virtual attendance and participation.

## THE VENUE

The TASDCRC Symposium 2021 is excited to welcome you to The Ville Resort-Casino.

The Ville Resort-Casino is located on the Townsville breakwater, with panoramic views overlooking Magnetic Island, the Coral Sea, Townsville City and iconic Castle Hill. The resort is within walking distance of the Magnetic Island ferry terminal, CBD, restaurants and cafés, shopping precincts, Reef HQ Aquarium, the Museum of Tropical Queensland, art galleries, and Townsville's award-winning beachfront, The Strand.

### ABOUT TOWNSVILLE

Townsville is the capital of North Queensland and is considered the Australia's largest tropical city. It is situated between Cairns and Brisbane; 260km north of the Whitsundays and 350km south of Cairns. The city is a popular destination for visitors wanting to experience all aspects of life in the tropics. North Queensland has it all: reef, rainforest, tropical islands, pristine beaches, and the outback. Townsville is the perfect playground to discover it all.

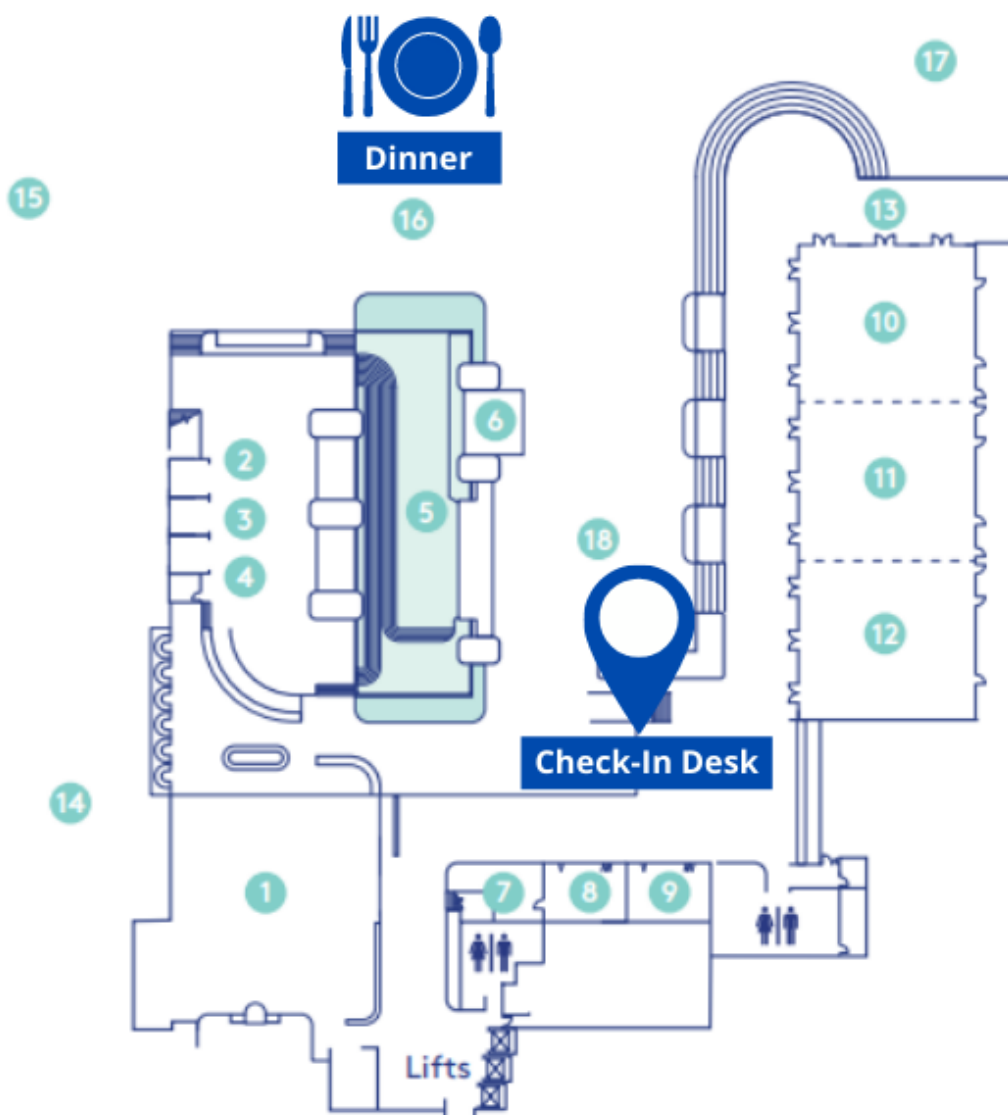


## MAP

The Symposium will be held on Level 2 of The Ville Resort-Casino with the networking function, lunches, morning and afternoon tea will take place on the veranda located opposite The Pavilion rooms. Enter the venue on Level 3 and use the lifts opposite Hotel Reception to make your way to the Symposium area on Level 2.

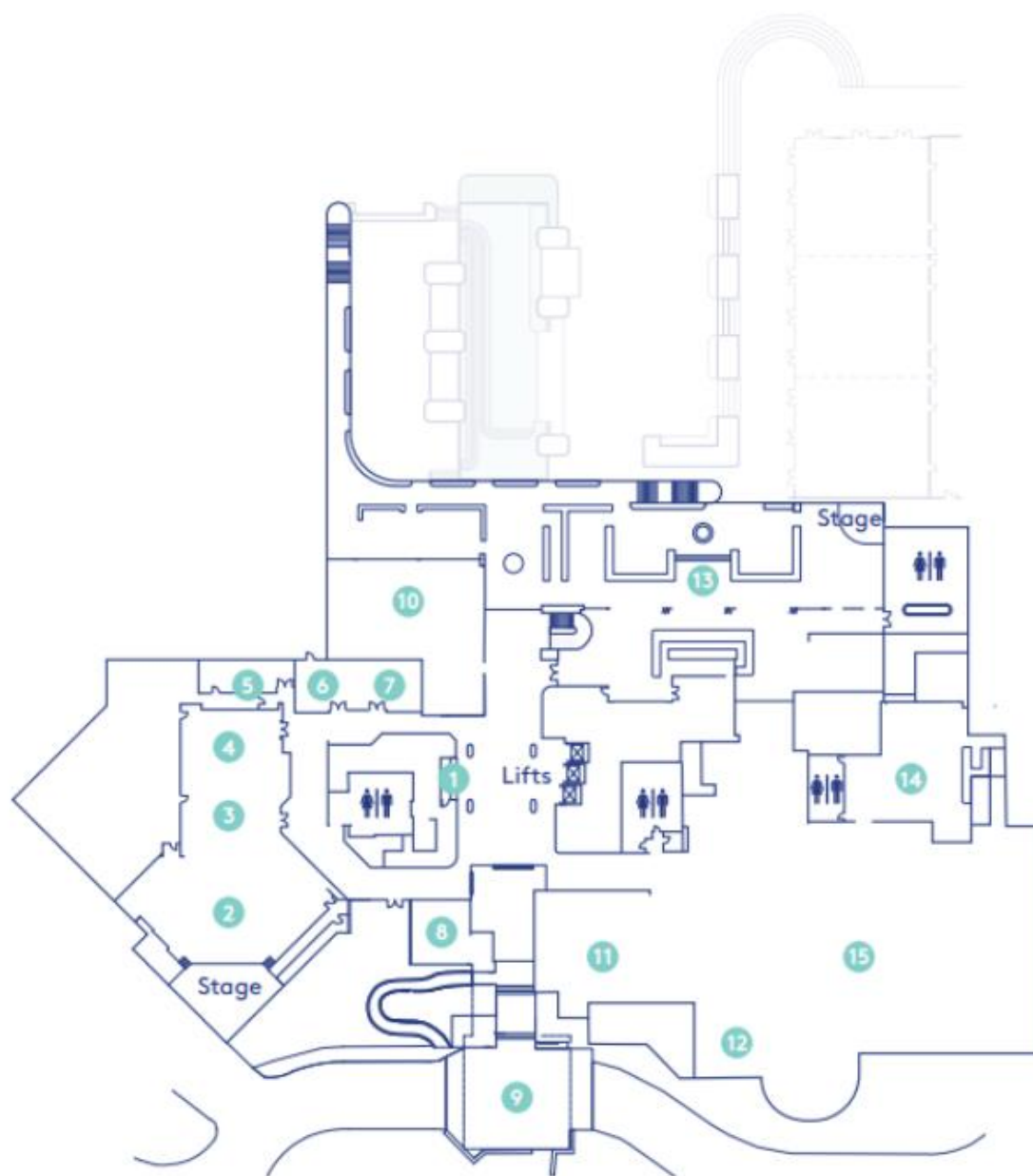
### LEVEL 2

- |                  |                   |                         |
|------------------|-------------------|-------------------------|
| 1 The Palm House | 7 Day Spa         | 13 The Pavilion Terrace |
| 2 Cabana 3       | 8 Daintree Room   | 14 The Palm House Lawn  |
| 3 Cabana 2       | 9 Gym             | 15 The Coral Sea Lawn   |
| 4 Cabana 1       | 10 The Pavilion 3 | 16 Poolside Lawn        |
| 5 Pool           | 11 The Pavilion 2 | 17 Pavilion 3 Lawn      |
| 6 Splash Bar     | 12 The Pavilion 1 | 18 Splash Bar Lawn      |



### LEVEL 3

- |                   |                              |                    |
|-------------------|------------------------------|--------------------|
| 1 Hotel Reception | 7 Coral Sea 2                | 12 Sports Bar      |
| 2 Ballroom 1      | 8 Northern Escape Collection | 13 Quarterdeck     |
| 3 Ballroom 2      | 9 Porte Cochère              | 14 VIP Gaming Room |
| 4 Ballroom 3      | 10 Miss Songs                | 15 Casino          |
| 5 Boardroom       | 11 Spin Café                 |                    |
| 6 Coral Sea 1     |                              |                    |





## GENERAL INFORMATION

For guidance or assistance, please visit the Symposium service desk or email [register@ccm.com.au](mailto:register@ccm.com.au) during the Symposium.

### COVID Safe Arrival

This is a COVID Safe Event. By scanning your QR code and printing a name badge, you agree to the below terms of entry;

- I do not have any COVID symptoms
- I have not been to any COVID hotspots in the past 14 days
- My personal details may be provided to authorities, should they be requested.

If you do not agree to the above terms, please stay home and join the event virtually live or on-demand using the login credentials provided below.

If you attend the event and answer yes to any of the above you will be refused entry, isolated in the nearest designated isolation space and referred to first aid, medical or in-event health services if available.

When entering the venue you will be required to check in using the [Check In QLD app](#) and undergo temperature checks using a thermal imagery device. The device is non-invasive and is used only for detecting the body temperature of individual(s).

You can download the Check In app here: [Check In Qld app | Queensland Government \(covid19.qld.gov.au\)](#)

Face masks will be available from the Service Desk courtesy of the Symposium. These should be carried and retained for use should they be required by Government regulation or venues visited during the Symposium.

### Check-in and Service Desk

The Check-in and Service Desk is located outside of Pavilion 1 Veranda and the nearby Daintree Room and will be open during the following hours;

*Tuesday 20 April*  
11am to 4:30pm

*Wednesday 21 April*  
8:15am to 5pm

*Thursday 22 April*  
8:15am to 12pm

All participants will be required to wear a name badge for the entirety of the Symposium.

On arrival, you will be asked to scan your QR code to check-in and print your name badge. The QR code is located in your final confirmation email and in your Delegate App. If you do not bring your QR code, please arrive earlier than the recommended check-in time, go to the Service Desk and present government issued photo identification (e.g. drivers licence or passport). Your name badge must be worn at all times to access all sessions and events. If you lose your name badge, a \$25 re-print fee will apply.

### Internet Access

The Ville Resort-Casino offers free WIFI internet access in all areas of the Symposium venue.

To access the network, please use the details below;

*Username: WiFi @ The Ville*

*Access Code: MKTGCRP*

*If you are having problems connecting please follow further instructions [here](#) or visit the Service Desk for assistance.*

### Accessibility

The Ville Resort-Casino is well equipped for persons with disabilities. The facilities include lifts and ramps.

### Food and Refreshments

The Symposium has scheduled catered breaks. During these breaks there will be morning and afternoon tea, as well as a working style lunch.

While the event caterer will endeavour to accommodate options for delegates who have food allergies or intolerances, we cannot guarantee completely allergy-free meals. This is due to the potential of trace allergens in the working environment and supplied ingredients.

### Dress Code

Dress for the Symposium is smart casual. This may include polo shirts and shorts with enclosed footwear. Dress for the Dinner (20 Apr) is tropical-rig (Hawaiian style shirts). Hats, sunglasses and water bottles encouraged for site visit 21 Apr. This does not preclude any individual or organisation setting a higher standard, e.g. uniform.

### Open Mic Opportunity

On the 21 April at the Networking function there will be an opportunity for any Symposium delegate to speak for no more than 5 minutes about their company and products to maximise the networking benefits during the function. This opportunity is strictly microphone only, no PowerPoint or other AV.

Limited spots available and will be assigned on a first in basis.

If you are interested in taking up this opportunity please visit the Service Desk before Tuesday 4pm.

## DELEGATE APP

Be sure to access the delegate app to start building your agenda, view speakers, participate in session Q&A and more!

### How to Access the Delegate App

To access the delegate app;

1. Go to your web browsers on your smart phone, tablet or laptop
2. Copy the URL into the browser and search <https://ccm.eventsair.com/attendeeapp/tas-Symposium2021/tas-app>
3. Login using your email address and PIN (located in the final confirmation email)

You can also quickly access the app by scanning the QR code to the right on your smart device.

*Delegate App QR code*



## VIRTUAL ACCESS

To participate in the event via the Virtual Portal, scan the QR code and enter your email and PIN, provided in the final confirmation email.

In the portal you will have access to registered sessions (including the opportunity to ask questions to the presenters) virtual exhibitions and the opportunity to meet with all event participants (once connections are accepted).

*Virtual Portal QR code*




If you would like to participate in session Q&A, type your question in the small Q&A box on screen or alternatively, use the Q&A icon in the delegate app – all questions will be moderated by our session chair and read to the panel.

### Difficulty Viewing Sessions

If you encounter any problems with viewing the sessions during the scheduled time, please note, the content will be available on demand, once the session has ended, until 21 July 2021.

### Portal Technical Questions

If you have any technical questions about the portal, please click the Live Support Hub icon  at the top right of your portal screen during the following hours;

*Tuesday 20 April*

12:30pm to 4:30pm

*Wednesday 21 April*

12:30pm to 5pm

*Thursday 22 April*

7:45am to 12pm

If you have technical questions outside of these hours, please email [program@ccm.com.au](mailto:program@ccm.com.au).

# OFFICIAL PROGRAM

Program subject to change without notice

## TUESDAY 20 APRIL – FUTURE CONCEPTS

**11.00am** Registration Opens

**12.30pm** Lunch

**CONFERENCE OPENING**  
**MC Ashley Gordon**  
Carillon Conference Management

**Comments/Welcome**  
Prof Jason Scholz, CEO Trusted Autonomous Systems Defence CRC

**1.30pm – 1.50pm** Hon Stirling Hinchliffe, Minister for Tourism Industry Development and Innovation and Minister for Sport

**Opening**  
Mr John Lee, Acting Director-General for the Department of Tourism, Innovation and Sport

**1. FUTURE CONCEPTS**  
**Chaired by Ashley Gordon**

**1.1 Future of TAS in Warfare**  
MAJGEN Michael Ryan, ADO

**1.50pm – 3.00pm** **1.2 Future of TAS in Defence**  
Dr Marcus Hellyer, Australian Strategic Policy Institute

**1.3 Research Innovation, Value Capture**  
Prof Swee Mak, Research & Innovation | RMIT University

**1.4 Defence Innovation, Science and Technology**  
Dr David Kershaw, Defence Science and Technology Group, Department of Defence

**3.00pm** Afternoon Tea

**2. ADF PRESENTATIONS**  
**“Role of RASAI in respective services”**  
**Chaired by Ashley Gordon**

**3.30pm** **2.1 Navy Perspective**  
CAPT Adam Allica, Defence

**2.2 Army Perspective**  
COL Robin Smith OBE, Australian Army

**2.3 Air Force Perspective**  
GPCAPT Mike Burgess-Orton, Royal Australian Air Force

**2.4 Space Perspective**  
Prof Allison Kealy, SmartSat CRC

**2.5 Panel discussion with audience Q&A chaired by Simon Ng, Trusted Autonomous Systems Defence CRC**

**5.15pm** Close Day 1

**6.00pm – 10.00pm** Dinner hosted by Dr Sarah Pearson, Deputy Director-General for Innovation



## WEDNESDAY 21 APRIL – TEST & EVALUATION

8.45am – 1.00pm	<p><b>Site visit to Australian Institute of Marine Science (AIMS) and Reef Works Launch</b>  Hosted by Melanie Olsen, Reefworks Project Director at AIMS  <i>(attendees convene in Plenary room for final brief before site visit)</i></p> <p>Reefworks Opening  Marine Operations Demonstration</p>
1.00pm	Lunch
1.30pm	<p><b>3. ETHICS AND LAW</b> chaired by Kate Devitt, Trusted Autonomous Systems Defence CRC</p> <p>3.1 Kate Devitt, Trusted Autonomous Systems Defence CRC  3.2 Lauren Sanders, International Weapons Review  3.3 Briefing and Panel Discussion, Simon McKenzie, Tim McFarland, Eve Massingham University of Queensland  3.4 Panel discussion with audience Q&amp;A chaired by Kate Devitt</p>
2.45pm	Afternoon Tea
3.00pm	<p><b>4. ASSURANCE OF AUTONOMY</b> chaired by Rachel Horne, TASD-CRC</p> <p>4.1 <b>Opening</b>  Rachel Horne, Trusted Autonomous Systems Defence CRC</p> <p>4.2 <b>Assurance of Machine Learning for use in Autonomous Systems (AMLAS)</b>  Prof John McDermid, AAIP Team at University of York</p> <p>4.3 <b>Teaching the fundamentals of autonomous maritime systems</b>  Christopher White &amp; Damien Guihen, Australian Maritime College</p> <p>4.4 <b>Panel on the assurance of autonomous systems hosted by Tom Putland, Trust Autonomous Systems Defence CRC</b>  Overview and brief on intended program of work, Tom Putland, Trusted Autonomous Systems Defence CRC  Queensland flight test range, Jim Parkes, QinetiQ  Epistemic Uncertainty in Assurance of Autonomous System Behaviours, Tristan Perez, Boeing  Enabling Agile Assurance of Drones in Queensland project, Evan Shellshear, Biarri Optimisation  Panel Q&amp;A with Chair - Tom Putland, Trusted Autonomous Systems Defence CRC</p> <ul style="list-style-type: none"> <li>- Tom Putland</li> <li>- Jim Parkes</li> <li>- Tristan Perez</li> <li>- Evan Shellshear</li> <li>- RADM (Ret) Simon Cullen, Department of State Development, Tourism and Innovation</li> </ul>
5.00pm	Close Day 2
5.00pm – 7.00pm	<p><b>Networking Function</b>  <b>Facilitated by Ashley Gordon</b>  <i>Guest speakers:</i>  Dr Yoko Furukawa, US Office of Naval Research Global  Dr Sue Keay, Qld AI Hub</p>

## THURSDAY 22 APRIL – OPERATIONALISATION

	<b>5. BACK-BRIEF</b> <b>Chaired by Ashley Gordon</b> <b>Update on the Army Robotics eXposition (ARX)</b> COL Robin Smith OBE, Australian Army
8.45am – 9.30am	<b>6. PARTNERING FOR EFFECT</b> <b>Chaired by Ashley Gordon</b> <b>How does defence partner as a method of engagement with industry and academia?</b> LTCOL Scott Holmes, Australian Army
9.30am – 10.30am	<b>7. CTC STATIC DISPLAY</b> <i>(Saltwater carpark)</i> Hosted by MAJ Wayne Gough
10.30am	<i>Morning Tea</i>
10.45am	<b>8. COMPLETED TAS PROJECTS</b> <b>Chaired by Ashley Gordon</b> <b>8.1</b> TAS perspective on projects, Simon Ng, Trusted Autonomous Systems Defence CRC <b>8.2</b> CISR Project, Emily Hughes, Boeing <b>8.3</b> Completed (accelerated) aspects of the Athena AI, Stephen Bornstein, Skyborne/Cyborg <b>8.4</b> Panel and final audience Q&A chaired by Simon Ng
12.00pm – 12.15pm	<b>CONFERENCE CLOSE</b> Jason Scholz, CEO Trusted Autonomous Systems Defence CRC
12.15pm – 1.30pm	<i>Closing Lunch</i>

## TRUSTED AUTONOMOUS SYSTEMS, CENTRE PARTICIPANTS



# AIMS TOUR

## About the Site Visit

The Australian Institute of Marine Science ([AIMS](#)) is Australia's tropical marine research agency.

They play a pivotal role in providing large-scale, long-term and world-class research that helps governments, industry and the wider community to make informed decisions about the management of Australia's marine estate.

The site visit to the Australian Institute of Marine Science ([AIMS](#)) is a unique opportunity to see behind the scenes of Australia's tropical marine research facility, not normally accessible to the public. In terms of RASAI, attendees will be briefed on the application of uncrewed and autonomous systems to marine science issues, view demonstrator activities and be present for an exclusive preview of the Reef Works, a national capability to safely test marine technologies, unmanned systems and new sensors in a tropical marine environment. Transport will depart The Ville at 9am and depart from AIMS at 12pm, a journey of just under one hour each way. While at AIMS, attendees will be under the direction of AIMS Staff as are the activities undertaken while on site.

### What to Bring:

- Hat
- Sunglasses
- Water bottles
- Enclosed footwear
- Mask (mandatory)

### Please note:

*You will be provided a face mask when you check-in for the Symposium, take this with you to AIMS in the event it is required. Hat, sunscreen, water recommended and enclosed footwear is required at AIMS.*

### Address:

1526 Cape Cleveland Road  
Cape Cleveland QLD 4810  
Australia  
Phone: (07) 4753 4444

## AIMS COVID Self-Assessment Declaration

As part of the tour, all delegates are required to make an individual COVID self-assessment declaration by close of business Friday 16 April.

Please also note, mobile reception other than Telstra is limited at the site.

The details required in the form are:

<b>Name</b>	Your Full Name
<b>Email Address</b>	Your Email Address
<b>Site Location</b>	Townsville
<b>AIMS Host</b> <i>(This will be your sponsor if you are a registered visitor)</i>	Melanie Olsen
<b>Reason for Site Visit/Access</b>	TASDCRC Symposium
<b>What Category of Work Will Be Undertaken?</b>	Other: Visit

To complete your COVID Self-Assessment click [here](#) or scan the QR code below. This is to be completed after Wednesday 14 April and by close of business Friday 16 April.

*AIMS Declaration QR Code*



## TRUSTED AUTONOMOUS SYSTEMS STAFF *(PRESENT AT SYMPOSIUM)*



**Professor Jason Scholz**  
CEO



**Dr Kate Devitt**  
Chief Scientist



**Rachel Horne**  
Director Autonomy  
Accreditation – Maritime



**Tom Putland**  
Director Autonomy  
Accreditation – Air



**Mark Guthrie**  
Business Operations  
(General questions on Symposium  
admin)



**Paul Jones**  
Security & Communications  
(General questions on Symposium  
admin)



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