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7. New Business
WHAT IS CTTC?

- We hold meetings twice per year:
  - At ICC and GLOBECOM.
- Become a member by joining the mailing list.
  - [http://committees.comsoc.org/comt/mailinglist.html](http://committees.comsoc.org/comt/mailinglist.html)
- You are an *active* member if:
  - Attend 2 of the past 5 meetings; or
  - Attend last two CTWs; or
  - Provide significant service to the committee.
- Currently, ~600 members, ~150 of which are active.

- Be sure to **SIGN IN**, so that we can log your attendance.
OFFICERS

- **Chair**
  - Urbashi Mitra
  - University of Southern California, USA

- **Vice-Chair**
  - Maite Brandt-Pearce
  - University of Virginia, USA

- **Secretary**
  - Meixia Tao
  - Shanghai Jiaotong University
OTHER POSITIONS

Standards Liaison
- George Alexandropoulos
  Huawei Tech. Co., Ltd.
- ⇨ Amitava Ghosh, Nokia Bell Labs

Student Competition Program
- Hideki Ochiai
- Yokohama National University
CTTC Representative: Prof. George C. Alexandropoulos, University of Athens (previously Huawei Technologies France)

3GPP

- **Radio Access Networks (RAN):** Next meeting information and previous meeting reports and documents are available [here](#). [List of Tdocs](#)

- **Services & Systems Aspects (SA):** Next meeting information and previous meeting reports and documents are available [here](#). [List of Tdocs](#)

- **Core Network & Terminals (CT):** Next meeting information and previous meeting reports and documents are available [here](#). [List of Tdocs](#)

- **3GPP Keywords and Acronyms**

- **3GPP Latest Release:** [Release 15](#)

- **ETSI 5G NR detailed description**
IEEE Virtual Reality and Augmented Reality Working Group

- IEEE P2048.1™ – Device Taxonomy and Definitions and more...

IEEE DySPAN Standards Committee

- IEEE 1900.7 Working Group and more...

IEEE 802 Standard

- IEEE 802.11 Working Group and more...

IEEE 1906.1-2015 – Recommended practice for nanoscale and molecular communication framework

and more on the CTTC’s e-space
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7. New Business
Communication Theory Technical Committee (CTTC)
Globecom 2018, Abu Dhabi, Emirates
December 10, 2018
ATTENDANCE = 33

EXECUTIVE SUMMARY

1. The minutes from the ICC 2018 meeting were approved

2. CTTC awards were announced

3. Globecom 2018, ICC 2019, Globecom 2019, CTW 2019, CTW 2020, and CTW 2021 reports were given

4. The new chair of CTTC was elected (thank you!)
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7. New Business
The Communication Theory Technical Committee (CTTC) of the IEEE Communications Society is primarily interested in fundamental problems associated with the transmission of information.

- Oversight of the Communication Theory Workshop
- Sponsorship of GLOBECOM and ICC symposia
  - Primary symposium: Comm Theory
- Recognize member accomplishment through:
  - IEEE Fellow and Senior Member endorsement
  - IEEE Distinguished Lecturer endorsement
  - Nomination for other IEEE and ComSoc awards
  - CTTC Awards in Technical Achievement, Outstanding Service, and Early Achievement
MAILING LIST INFORMATION

- Email list is comm-theory@ieee.org
  - Must be subscribed to send
  - Moderated: Must be approved by an officer
- Is a “quiet” list with few postings per year
- Standard acceptable uses:
  - CTTC-business: Meeting announcements, minutes, etc.
  - CFP for CTTC sponsored events: CTW and CT Symposia
- Special uses:
  - CT-related job openings posted by CT members: Postdoc & faculty
  - Niche workshops targeted to the CT community
- Not-acceptable:
  - CFP’s for conferences and workshops that are widely known
  - Advertising of graduate programs and announcements of fellowships
Best Readings is a curated collection of previously published books, articles, and papers on a featured topic

- Published quarterly at http://www.comsoc.org/best-readings
- Links to the source reference with short descriptions
- Helpful to those who wants to acquire a background on the topic

Examples

- Broadband Access
- Cloud Communications and Networking
- Cognitive Radio
- Communications and Information Systems Security
- Device-to-Device Communications (Updated)
- e-Health
- Green Communications (Updated)
- Internet of Things
- Massive MIMO
- Multi-Tier Cellular
- Nanoscale Communication Networks
- Optical Wireless Communications (New)
- Physical Layer Security
- Power Line Communications
- Smart Grid Communications

M. Valenti is EiC

- Let him know if you would like to guest edit
WANT TO BECOME MORE INVOLVED?

- Volunteer to be on the TPC for an upcoming Comm Theory Symposium (typical TPC size is around 150 members)
  - GC’19: Contact Wei Yu <weiyu@ece.utoronto.ca>
- Volunteer to be a symposium chair
  - We have made nominations through ICC’21
  - We need more volunteers!
  - Contact Ubli, and include your bio/CV
- Standards liaison or student award rep
- Get involved with the organization of a CTW
  - Next proposal needed: CTW’22
- Organize a Best Readings
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7. New Business
CTTC gives out 3 distinct awards:
- Technical Achievement Award
- Outstanding Service Award
- Early Achievement Award
(can be multiple recipients or no recipients in a given category)
- Call for Nominations sent in May/June
- Awarded at following GLOBECOM, ICC, or CTW
- Nominations due June 30 of every year
  - Web forms on CTTC web site (need to be made live)
Maite Brandt-Pearce, Chair

David Gesbert

Erik Perrins

Two new members to be selected soon
EARLY ACHIEVEMENT AWARD

- Recognizes young members of the CTTC who have achieved early career visibility in the field through research and service and who (i) have participated in the CTTC (e.g., attended CTTC meetings, attended CTW, served the CTTC in a significant capacity, been a member of the TPC for ICC/GLOBECOM) and (ii) are within 10 years of their Ph.D.

- Past recipients:
  - 2017: Tony Q.S. Quek and Deniz Gündüz
  - 2016: Marios Kountouris
Ayfer Ö zgür
Assistant Professor
Stanford University

for contributions in the fundamental capacity limits of multihop wireless networks and energy-harvesting radios
TECHNICAL ACHIEVEMENT AWARD

- Recognizes members of the CTTC who have been involved with the committee, have done outstanding work in communication theory, and have achieved a high degree of visibility in the field.
- Past recipients:
  - 2017: Behnaam Aazhang and Michael B. Pursley
  - 2016: Jack Winters
  - 2015: John Proakis
  - 2014: Reinaldo Valenzuela and Norm Beaulieu
  - 2013: Andrea Goldsmith
  - 2012: Larry Milstein
  - 2011: Sergio Benedetto
  - 2010: Gerald Foschini and Dariush Divsalar
Elza Erkip
Institute Professor
New York University

for contributions to the theory and practical design of cooperative and MIMO communications
OUTSTANDING SERVICE AWARD

- Recognizes members of the CTTC who have a distinguished record of service to the communication theory community, including CTTC-sponsored symposia and workshop organization, leadership roles within the committee, and promoting committee activities and interests in the broader research community.

- Past recipients:
  - 2016: Behnaam Aazhang
  - 2015: Sergio Benedetto
  - 2014: Ender Ayanoglu
  - 2013: Michael Rice
  - 2012: Costas Georghiades
  - 2011: Len Cimini
  - 2010: Richard Gitlin and Larry Milstein

THIS IS NOW!
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7. New Business
# Upcoming Conference Venues

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<td>ICC’19</td>
<td>Shanghai</td>
<td>20-24 May 2019</td>
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<tr>
<td>GC’19</td>
<td>Hawaii (Waikoloa, Big Island)</td>
<td>9-13 Dec 2019</td>
</tr>
<tr>
<td>ICC’20</td>
<td>Dublin</td>
<td>7-11 June 2020</td>
</tr>
<tr>
<td>GC’20</td>
<td>Taipei</td>
<td>7-11 Dec 2020</td>
</tr>
<tr>
<td>ICC’21</td>
<td>Montreal</td>
<td>14-18 June 2021</td>
</tr>
<tr>
<td>GC’21</td>
<td>Madrid</td>
<td>7-11 Dec 2021</td>
</tr>
<tr>
<td>ICC’22</td>
<td>Seoul</td>
<td>16-20 May 2022</td>
</tr>
<tr>
<td>GC’22</td>
<td>Rio De Janeiro</td>
<td>4-8 Dec 2022</td>
</tr>
<tr>
<td>ICC’23</td>
<td>Rome</td>
<td>2023</td>
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ICC’19 Communication Theory Symposium Co-chairs
- Matthew Valenti (West Virginia University, USA)
- Justin Coon (Oxford University, UK)
- Feng Shu (Nanjing University of Science and Technology, China)

Stats
- # Submissions: 126
  - Comparison: GC’18 = 130; ICC’18 = 111; ICC’17 = 164; ICC’08 = 258
- # TPC members: 187; Average TPC member load ≈ 2.7 papers
- # Acceptances: 50 accepted; 39.6% accept rate
  - 1 paper withdrew after acceptance.

Sessions
- 8 oral sessions w/ 5 papers each.
- 1 interactive session w/ 10 papers.

Best paper award
- Symposium chairs nominated 2 papers; award committee picked winner
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Co-Chairs:
- Wei Yu, University of Toronto, Canada
- Enrico Paolini, University of Bologna, Italy
- Andrea M. Tonello, University of Klagenfurt, Austria

144 submitted papers.
139 confirmed TPC members.
Each TPC member is assigned a maximum of 5 reviews.

Reviews are due: July 1, 2019
Acceptance notification: July 15, 2019
Camera Ready due: August 16, 2019
Conference: December 9-13, 2019
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Co-Chairs:
- Harpreet Dhillon, Virginia Tech
- Deniz Gunduz, Imperial College London
- Mark Flanagan, University College Dublin

As mentioned in opening remarks, please contact co-chairs to volunteer for the TPC if you are interested.

We have been told that the ICC 2020 website will go live immediately after ICC 2019.

The current dates are:
- Paper Submission: October 14, 2019
- Acceptance Notification: January 27, 2020
- Camera-Ready: February 24, 2020
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7. New Business
CTW STEERING COMMITTEE

- David Gesbert
  EURECOM
  2016–2019

- Michael Honig
  Northwestern University
  2017–2020, Chair

- Stephen Hanly
  Macquarie University
  2018–2021

- Angel Lozano
  Universitat Pompeu Fabra
  2019–2022
# UPCOMING CTW VENUES

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<td>Reykjavik, Iceland</td>
<td>27-29 May 2019</td>
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<td>CTW’20</td>
<td>Banff, Alberta, Canada</td>
<td>17-20 May 2020</td>
</tr>
<tr>
<td>CTW’21</td>
<td>Marbella, Spain</td>
<td>May 2021</td>
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</table>
General Chair
- Petar Popovski (Aalborg University, Denmark)

TPC Chairs
- Urbashi Mitra (University of Southern California, USA)
- Erik Larsson (Linkoping University, Sweden)

Local organizing chair
- Magnus M. Halldorsson (Reykjavik University, Iceland)

Poster Chairs
- Nuria Gonzalez Prelcic (University of Vigo, Spain)
- Maite Brandt-Pearce (University of Virginia, USA)

Fundraising chair
- Marios Kontouris (Huawei, France)
TECHNICAL PROGRAM: KEYNOTES

- **Keynote 1:**
  *5G for Industry 4.0 – Are we there yet?*
  Andreas Mueller (Bosch and 5G-ACIA)

- **Keynote 2:**
  *Looking anew at what we thought we knew*
  Muriel Médard (MIT)

- **Keynote 3:**
  *Foundational Aspects of Blockchain Protocols*
  Juan Garay (Texas A&M University)
Session 1: Security in Social Information Systems  
Organizer: Anna Scaglione (Arizona State University)

Session 2: Resilience for Network Attacks  
Organizer: Bruno Sinopoli (Carnegie Mellon University)

Session 3: Communications in the Real World: Theory & Experiments  
Organizer: Howard Huang (Nokia Bell Labs)

Session 4: Core Communication Theory  
Organizer: Wei Yu (University of Toronto)

Session 5: Unconventional Communications: Emerging Modalities  
Organizer: Maite Brandt-Pearce (University of Virginia)
Panel 1: Emerging IoT Applications That Will Drive 6G and New Communication Theory Problems
Organizer: Jeff Andres

Panel 2: Machine Learning: Salvation or Illusion?
Organizers: Shuguang Cui (University of California, Davis) and Sudharman Jayaweera (University of New Mexico)
78 registered participants

- Tickets for the Blue Lagoon banquet are sold out (latest date was May 17)

- Two Golden Patrons
  - Nokia Bell Labs
  - Huawei
VENUE: SELFOSS HOTEL

- 4-star hotel,
- [http://hotelselfoss.is](http://hotelselfoss.is)

**Reviews**
- 8.6 on booking.com
- 4/5 on tripadvisor
Location
- Countryside, lies on the Golden Circle, a popular tourist route

The Golden Circle route includes:
- Pingvellir National Park
  30 minutes from hotel
- Geysir, Gullfoss
  50 minutes from the hotel,
- Kerið crater
  15 minutes from the hotel
- The whole route includes other places as well and can be done in 6-7 hours.
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7. New Business
An Update on IEEE Communications Theory
Workshop 2020
Presenter: Julian Cheng

May 17-20, 2020 | Banff, Alberta, Canada
ORGANIZING COMMITTEE

- General Chairs
  - Andrew Eckford (York University, Canada)
  - Julian Cheng (University of British Columbia, Canada)

- TPC Chairs
  - Natasha Devroye (University of Illinois at Chicago, USA)
  - Behnaam Aazhang (Rice University, USA)

- Treasurer
  - Anas Chaaban (University of British Columbia, Canada)
3 keynotes, 4-6 invited talks, 7 sessions, 1 poster session, 1-2 data competitions (TBD)

Tentative Sessions
- Communications for distributed learning
- Graph signal processing
- Communications and control
- Communication for massive multiple access
- Co-existence of radar and communications
- Etc. etc.

Confirmed Session Organizers
- Osvaldo Simeone, King’s College London
- Tara Javidi, UCSD
- More to be announced
VENUE: BANFF SPRINGS HOTEL

- Located in the heart of Banff National Park
  - 5-star hotel
  - [https://www.fairmont.com/banff-springs/](https://www.fairmont.com/banff-springs/)

- Reviews
  - 4.5/5 on Tripadvisor
  - 8.8/10 on Trivago
  - 8.6/10 on Booking.com
OTHER THINGS TO DO IN BANFF & AREA

- Cave & Basin National Historic Site
- Sulphur Mountain gondola
- Columbia Icefields
- Hiking
- Bike tours / rentals
- Whitewater rafting
- Spas
- Fine dining

- Etc. etc. etc.
GETTING TO BANFF

- **Calgary Intl. Airport (YYC)**
  - Nonstop flights to most US hubs
  - Nonstop flights to London, Frankfurt, Amsterdam, Beijing, Tokyo

- **Shuttle from airport**
  - Door-to-door service to venues
  - 90 minute travel time
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7. New Business
IEEE COMMUNICATION THEORY WORKSHOP, 2021

- Marbella, Spain
Where?
Marbella, Costa del Sol, Spain

When?
Dates: 30/05/2021 - 02/06/2021

Previous CTW in Mediterranean Europe

CTW’04: Capri (Italy)
CTW’11: Sitges (Spain)
CTW’16: Nafplio (Greece)
Organizing Committee

GENERAL CO-CHAIRS
ANDREA GOLDSMITH (STANFORD UNIVERSITY)
JUAN ROMERO-JEREZ (UNIV. MALAGA)

TECHNICAL PROGRAM CO-CHAIRS
MOHAMED-SLIM ALOUINI (KAUST)
F. JAVIER LOPEZ-MARTINEZ (UNIV. MALAGA)

POSTER CO-CHAIRS
MAHNOOSH ALIZADEH (UC SANTA BARBARA)
DAVID MORALES-JIMENEZ (QUEEN'S UNIVERSITY BELFAST)

PUBLICITY CO-CHAIRS
ANA GARCIA-ARMADA (UNIV. CARLOS III)
TBD

FINANCE CHAIR
MARIA AGUAYO-TORRES (UNIV. MALAGA)

OTHER POSITIONS TBD
Marbella: Overview

- Mediterranean coast, Southern Spain: the most exclusive tourist destination on the Costa del Sol
- Marbella → in the chic, sun-drenched Costa del Sol town of Marbella, hints of its rich history mixed with modern-day resort amenities
- 40 min drive from Malaga Pablo Ruiz Picasso airport (AGP), 3rd largest in continental Spain
- World-class dining (up to five 2-star and 1-star Michelin restaurants)
- Currency: €
- Language: Spanish + English (tourism + UK residents)
How to reach Marbella

Fly to Malaga and then take a taxi (63€), bus (6-8€).

Flying to Malaga (Direct)
Madrid/Barcelona (<1h30)
Paris/Rome/Zurich (2h30)
London/Amsterdam (3h)
Frankfurt/Munich/Berlin (3h)
Copenhagen (3h45)
Stockholm (4h30)
Istanbul (4h40)
Moscow (5h30)
Montreal (7h30)
New York (7h30)

Flying to Malaga (Connection)
Dallas (13h30)
Bay Area (14h)
Beijing (14h)
Tokyo (16h)
Hong Kong (17h)
Marbella Attractions

- WORLD-CLASS RESORTS
- 25 KM OF BEACHES, INCLUDING AREAS OF PROTECTED DUNES
- MARINAS, NIGHTLIFE, DESIGNER SHOPS AND TRENDSY FISH RESTAURANTS
- GOLDEN MILE: LOCATION OF THE MOST SOPHISTICATED VILLAS AND HOTELS
- AMONG THE PLACES OF INTEREST ARE THE 10 SCULPTURES OF DALÍ ON AVENIDA DEL MAR, THE ALLEYS OF THE HISTORIC CENTER AND THE COLORFUL HOUSES OF ANDALUSIAN STYLE
Marbella Pictures
Marbella resorts

- Location of the main hotels in Marbella

- Resort choice:
  • Los Monteros
Los Monteros Marbella Hotel & Spa (5*GL)

- Regular price (in spring) ~ 200 €/night (double room)
- **Hotel offer** per night if 60 rooms are booked (buffet breakfast included. V.A.T included):
  - 170 €/room (double-twin)
  - **160 €/room** (double room for single use)
- Location: 500 m from the sea and Hotel Beach Club (10 minutes walk in urbanized area – the hotel offers transportation)
- 5 km from Marbella downtown
- Number of rooms: 173
- Spa/ Golf/ Beach club
- Salon Real: Big meeting room. Capacity for up to 350 people. It can be divided in 3 sections
- Patio rooms: Located around an Andalusian patio. Meetings for 15-50 people
- Reviews: 8.5 in booking.com – 4.5/5 TripAdvisor
Los Monteros Marbella Hotel & Spa (5*GL) (pictures include Hotel Beach Club)
Nearby attractions

- Caminito del Rey (Lonely Planet’s top experiences 2015)
- Antequera Dolmens & Torcal (UNESCO World Heritage 2017)
- Ronda
Nearby attractions: Málaga

- 1 hour drive from Marbella
- Botanical garden
- Historical monuments: Roman theater, Arab castle and fortress, cathedral, Andalusian architecture
- World-class museums: Picasso, Thyssen, Pompidou, among others
- Vibrant nightlife
Nearby attractions: Málaga
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7. New Business(?)
See you in Selfoss (and then the Big Island)

Tentatively, our meeting will be:
- Tuesday, December 10, 2019, at 6:30 PM.