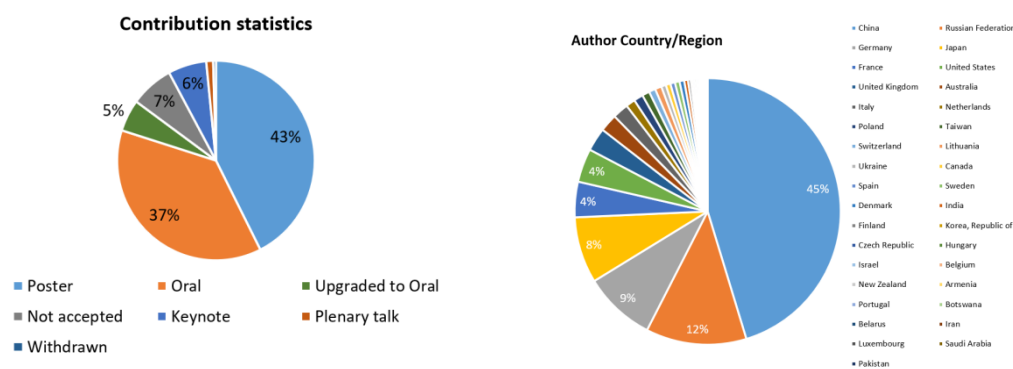


Summary of IRMMW-THz 2021



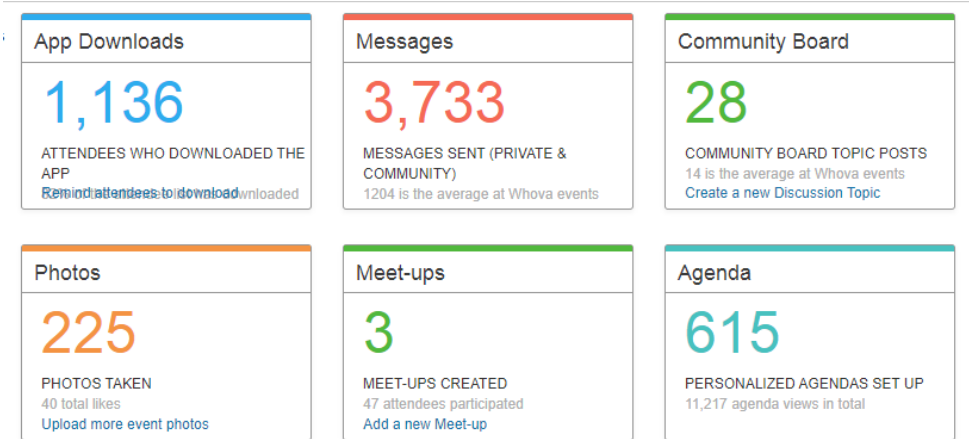
This year, we received 890 abstracts in total from all over the world, including 34 countries. China (400), Russia (109), Germany (77), Japan (71), France (38), United States (36), and United Kingdom (25) are the most paper contributing countries. We had 823 accepted papers at the end, the rejection rate was approximately 7.53%, slightly lower compared to the previous data. However, the selections were indeed the hardest mode. That is, we had 3 independent reviewers for each abstract, and the average scores ranging from 1-5. We set an overall score of <2 as poor quality and rejected all these papers (If one reviewer had a score of 1, we rejected it as well). We set papers scored from 2-3 as Posters. Only 3-4 scored papers would be considered as Orals, and an overall score higher than 4 had the chance to upgrade to a Keynote talk. Ultimately, we had 56 Keynote talks, 378 Orals, and 379 Posters.

We had 10 Plenary talks for this year, mainly based on Technical Program Committee (88 members across the globe ranging from various research fields) recommendations. After multiple internal and external discussions and careful selection, considering the high-quality of their research work as well as the balance of topics at our conference, we got the top 9 speakers with their exciting and informative stories and discoveries (KJB prize winner gives plenary talk without committee evaluation). We received very positive comments and feedback on these selected plenary talks, and we believe the attendance number would be much higher if the conference was an in-person event.

Metamaterials, plasmonics and artificial materials	99	Defense and security	12
Electronic devices	90	Processing and Fabrication	12
Spectroscopy	89	LAN and communication	10
MMW components and systems	80	Protein and DNA: Structure and Dynamics	9
Laser driven sources and detectors	61	Metrology	8
Infrared and THz Photodetectors	59	Water	8
Tubes, gyrotrons, amplifiers	58	Artificial Intelligence and Machine Learning Applications	7
Components and Systems	47	Quantum Materials, Spintronics	7
Imaging and remote sensing	37	chemical reaction dynamics	6
Tissue Imaging and Cellular Applications	26	Components and devices for mm-wave astronomy	5
Ultrafast and Nonlinear phenomena	25	High field Pulse generation	4
Quantum Cascade Lasers/Systems	24	Atmospheric and Environmental Monitoring	4
2D materials, nanomaterials	22	Plasma diagnostics	3
THz Waveguides	18	Gas phase spectroscopy	3
FEL and synchrotrons	17	2D spectroscopy	2
Standoff Monitoring/Inspection	17	Nano and quantum devices	1
Near-field techniques and microscopy	13	chemical microscopy/nanoscscopy	1

As shown in the above tables, we had 34 topics this year. Meta-materials, Electronic devices, Spectroscopy, MMW components, and systems were the most popular topics among all, whilst Plasma diagnostics, Gas-phase spectroscopy, Nano and quantum devices, and chemical microscopy/nanoscopy were the least popular. Due to the imbalance of these topics, many reviewers had an extra workload to re-review those abstracts which were not allocated to them initially. One possible way to improve the efficiency of the TPC working process is, to name the topics ahead of time more specifically, rather than big/wide topics VS small/narrow topics, and when considering the board of TPC, not only the quantity of members is important, but the reviewer with his/her research field related to the listed topics is crucial as well.

We had 78 parallel sessions for all the talks. We were trying our best when scheduling the program to maximize the capacity for various time slots. Basically, we set three groups named Morning group (for Asian, Pacific, and American time zone), Afternoon group (for Asian, Pacific, and European time zone), and Evening group (for all poster presenters). And we are proud to announce that no more than 15 presenters needed to show up at midnight by our solution, which is the common conflict in almost every international online conference.



At the same time, we had strict rules for attendance/absence of our conference. Every session chair should inform our Local Organizing Committee Staff if every keynote/oral presenter was present. Staff would check every poster breakout room to see if the poster presenter had uploaded his/her work properly and had valid communication and interactions with the audiences. Therefore, the final records for our conference were: We had 770 out of 823 valid presentations according to our criteria, only when the presenters had completed their presentations at the conference, their papers would be archived and indexed by IEEE Xplore. For the second fully online event of the IRMMW-THz series, We had 1378 registered Whova attendees for our conference, and 1136 of them had downloaded the Whova mobile apps.

Submitted respectively

IRMMW-THz 2021 Technical Program Committee
X.-C. Zhang (chair), Min Hu (co-chair), and Nora Liu (secretary)

