TRIUMF Science Week 2021

Report of Contributions

Contribution ID: **2** Type: **not specified**

Welcome from TRIUMF Director, Nigel Smith

Monday, 16 August 2021 08:00 (20 minutes)

Presenter: Dr SMITH, Nigel (TRIUMF)

Session Classification: Welcome Session

Contribution ID: **3** Type: **not specified**

ACE EDI: Awareness, Collaboration, and Engagement to advance Equity, Diversity, and Inclusion

Monday, 16 August 2021 08:20 (30 minutes)

Summary

Presenter: Dr THOMSON, Rowan (Carleton University)

Session Classification: Welcome Session

Contribution ID: **4** Type: **not specified**

Discussion

Monday, 16 August 2021 08:50 (10 minutes)

Presenter: Dr KWIATKOWSKI, Anna (TRIUMF)

Session Classification: Welcome Session

Contribution ID: **5** Type: **not specified**

Current Trends in Nuclear Structure

Monday, 16 August 2021 09:15 (30 minutes)

Presenter: Dr CRAWFORD, Heather (Lawrence Berkeley National Laboratory)

Session Classification: Nuclear Physics Session

Contribution ID: **6** Type: **not specified**

Recent and Future Studies of Astrophysical Reactions at ISAC

Monday, 16 August 2021 09:45 (15 minutes)

Presenter: Dr WILLIAMS, Matthew (TRIUMF)

Session Classification: Nuclear Physics Session

Contribution ID: **7** Type: **not specified**

Heavy Element Nucleosynthesis

Monday, 16 August 2021 10:00 (15 minutes)

Presenter: Dr VASSH, Nicole (TRIUMF)

Session Classification: Nuclear Physics Session

Contribution ID: **8** Type: **not specified**

Hidden energy scale in geometrically frustrated systems and implications for quantum magnets

Monday, 16 August 2021 10:30 (30 minutes)

Presenter: Dr RAMIREZ, Art (UC Santa Cruz)

Session Classification: Quantum Materials Session

Contribution ID: **9** Type: **not specified**

Quantum Critical Scaling in a metallic Kagome system

Monday, 16 August 2021 11:00 (15 minutes)

Presenter: Dr REIG-I-PLESSIS, Dalmau (UBC)

Session Classification: Quantum Materials Session

Contribution ID: **10** Type: **not specified**

Enhanced superconductivity in plastically deformed strontium titanate

Monday, 16 August 2021 11:15 (15 minutes)

Presenter: Dr HAMEED, Sajna (University of Minnesota)

Session Classification: Quantum Materials Session

Contribution ID: **11** Type: **not specified**

Expanding the radioisotope toolbox for nuclear medicine

Monday, 16 August 2021 12:30 (20 minutes)

Presenter: Dr LAPI, Suzanne (University of Alabama)

Session Classification: Life Sciences Session

Contribution ID: **12** Type: **not specified**

The BELLA PW laser proton beamline: a new platform for ultra-high dose rate radiobiological research

Monday, 16 August 2021 12:50 (20 minutes)

Presenter: Dr OBST-HUBL, Lieselotte (Lawrence Berkeley National Laboratory)

Session Classification: Life Sciences Session

Contribution ID: **13** Type: **not specified**

Biological and Medical Applications of bNMR Spectroscopy

Monday, 16 August 2021 13:10 (20 minutes)

Presenter: Dr MCFADDEN, Ryan (TRIUMF)

Session Classification: Life Sciences Session

Contribution ID: **14** Type: **not specified**

FRIB Accelerator Science and Technology Challenges

Monday, 16 August 2021 13:45 (20 minutes)

Presenter: Dr OSTROUMOV, Peter (FRIB)

Session Classification: Accelerator Science Session

Contribution ID: **15** Type: **not specified**

Target and Ion Sources Development at TRIUMF

Monday, 16 August 2021 14:05 (20 minutes)

Presenter: Dr BABCOCK, Carla (TRIUMF)

Session Classification: Accelerator Science Session

Contribution ID: **16** Type: **not specified**

SRF and Beam Physics Research at UVic and TRIUMF

Monday, 16 August 2021 14:25 (20 minutes)

Presenter: Dr JUNGINGER, Tobias (Triumf)

Session Classification: Accelerator Science Session

Contribution ID: **17** Type: **not specified**

Scientific and Quantum Computing

Tuesday, 17 August 2021 08:00 (30 minutes)

Summary

Presenter: Dr ELSEN, Eckhard (CERN / DESY)

Session Classification: Scientific Computing / Particle Physics Session

Contribution ID: **18** Type: **not specified**

Hyper-K: Precision Neutrino Experiment Techniques

Tuesday, 17 August 2021 08:30 (15 minutes)

Presenter: Dr DE PERIO, Patrick (TRIUMF)

Session Classification: Scientific Computing / Particle Physics Session

Contribution ID: **19** Type: **not specified**

Challenges and opportunities in Particle Physics

Tuesday, 17 August 2021 08:45 (30 minutes)

Presenter: Dr SANZ, Veronica (University of Valencia / University of Sussex)

Session Classification: Scientific Computing / Particle Physics Session

Contribution ID: **20** Type: **not specified**

ATLAS, DiHiggs, Higgs Self Coupling

Tuesday, 17 August 2021 09:30 (15 minutes)

Presenter: Dr SWIATLOWSKI, Maximilian (TRIUMF)

Session Classification: Particle Physics Session

Contribution ID: **21** Type: **not specified**

Laser Cooling of Antihydrogen Atoms

Tuesday, 17 August 2021 09:45 (15 minutes)

Presenter: Mr EVANS, Andrew (University of Calgary)

Session Classification: Particle Physics Session

Contribution ID: **22** Type: **not specified**

Particle Physics Theory: Dark Neutrons

Tuesday, 17 August 2021 10:00 (15 minutes)

Presenter: Dr RAJ, Nirmal Raj Krishna (TRIUMF)

Session Classification: Particle Physics Session

Contribution ID: **23** Type: **not specified**

Realizing The Vision: Science Technology

Tuesday, 17 August 2021 10:30 (30 minutes)

Presenter: Dr DEMARTEAU, Marcel (Argonne National Laboratory)

Session Classification: Science Technology Session

Contribution ID: **24** Type: **not specified**

ITK + Future Detector R&D

Tuesday, 17 August 2021 11:00 (15 minutes)

Presenter: Dr POLEY, Luise (TRIUMF)

Session Classification: Science Technology Session

Contribution ID: **25** Type: **not specified**

Results in Scientific Computing

Presenter: Dr FEDORKO, Wojciech (TRIUMF)

Session Classification: Science Technology Session

Contribution ID: **26** Type: **not specified**

Particle Physics

Wednesday, 18 August 2021 08:00 (20 minutes)

Presenter: Dr MORRISSEY, David (TRIUMF)

Session Classification: 20-Year Vision - Subatomic Physics

Contribution ID: **27** Type: **not specified**

Nuclear Physics

Wednesday, 18 August 2021 08:20 (20 minutes)

Presenter: Dr DILLMANN, Iris (TRIUMF)

Session Classification: 20-Year Vision - Subatomic Physics

Contribution ID: **28** Type: **not specified**

Fundamental Physics with AMO Techniques

Wednesday, 18 August 2021 08:40 (20 minutes)

Presenter: Dr CHARLES, Christopher (TRIUMF)

Session Classification: 20-Year Vision - Subatomic Physics

Contribution ID: **29** Type: **not specified**

Poster Session

Tuesday, 17 August 2021 12:30 (1 hour)

Session Classification: Poster Session + Networking Event

Contribution ID: **30** Type: **not specified**

Roadmap to career in research and academia

Tuesday, 17 August 2021 13:30 (1 hour)

Moderated panel discussion

Session Classification: Poster Session + Networking Event

Contribution ID: **31** Type: **not specified**

Future Directions in Scientific Computing

Wednesday, 18 August 2021 11:00 (30 minutes)

Summary

Presenter: Dr TAFIROUT, Reda (TRIUMF)

Session Classification: 20-Year Vision - Scientific Computing

Contribution ID: **32** Type: **not specified**

Accelerator Science and Facilities

Wednesday, 18 August 2021 09:15 (30 minutes)

Summary

Presenter: Dr PLANCHE, Thomas (TRIUMF)

Session Classification: 20-Year Vision - Accelerators

Contribution ID: **33** Type: **not specified**

Quantum Technologies

Wednesday, 18 August 2021 10:30 (30 minutes)

Summary

Presenter: Dr HESSEY, Nigel (TRIUMF)

Session Classification: 20-Year Vision - Quantum Technologies

Contribution ID: **34** Type: **not specified**

TRIUMF Site Development

Wednesday, 18 August 2021 09:45 (30 minutes)

Summary

Presenter: Ms ABOUD, Anne Louise (TRIUMF)

Session Classification: 20-Year Vision - Site Development

Contribution ID: **35** Type: **not specified**

Life Sciences Summary

Thursday, 19 August 2021 11:15 (30 minutes)

Summary

Presenter: SCHAFFER, Paul (TRIUMF)

Session Classification: 20-Year Vision - Life Sciences

Contribution ID: **36** Type: **not specified**

Summary of topical group: Probes for quantum materials and bio-molecules in 20-year vision

Thursday, 19 August 2021 10:30 (10 minutes)

Summary

Presenter: Dr KOJIMA, Kenji (TRUIMF)

Session Classification: 20-Year Vision - Quantum Materials

Contribution ID: **37** Type: **not specified**

Summary of Workshop on Beam-based Probes of Condensed Matter Physics, Chemistry and Related Fields in Canada

Thursday, 19 August 2021 10:40 (10 minutes)

Summary

Presenter: Dr MCKENZIE, Iain (TRIUMF)

Session Classification: 20-Year Vision - Quantum Materials

Contribution ID: **38** Type: **not specified**

Discussion

Thursday, 19 August 2021 10:50 (25 minutes)

Summary

Session Classification: 20-Year Vision - Quantum Materials

Contribution ID: **39** Type: **not specified**

TUG AGM - Intro and Welcome

Friday, 20 August 2021 10:30 (5 minutes)

Summary

Presenter: Dr GWINNER, Gerald (University of Manitoba)

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **41** Type: **not specified**

TRIUMF Users Office: Current Status and Future Outlook, Results of User Survey

Friday, 20 August 2021 10:35 (30 minutes)

Summary

Presenter: Dr PAVAN, Marcello (TRIUMF)

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **42** Type: **not specified**

GAPS presentation

Friday, 20 August 2021 11:05 (15 minutes)

Summary

Presenter: YATES, Daniel (TRIUMF)

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **43** Type: **not specified**

Poster competition announcement

Friday, 20 August 2021 12:30 (10 minutes)

Summary

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **44** Type: **not specified**

Q&A with management, further discussion

Friday, 20 August 2021 12:40 (45 minutes)

Summary

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **45** Type: **not specified**

concluding Remarks

Friday, 20 August 2021 13:25 (5 minutes)

Summary

Presenter: Dr GWINNER, Gerald (University of Manitoba)

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **46** Type: **not specified**

Discussion

Friday, 20 August 2021 11:20 (10 minutes)

Summary

Session Classification: TRIUMF Users Group Annual General Meeting

Contribution ID: **47** Type: **not specified**

Particle Identification at NA62

Tuesday, 17 August 2021 11:15 (3 minutes)

Summary

Presenter: VELGHE, Bob (TRIUMF)

Session Classification: Science Technology Session

Contribution ID: **48** Type: **not specified**

Pion classification and calibration at ATLAS

Tuesday, 17 August 2021 11:18 (3 minutes)

Summary

Presenter: PORTILLO QUINTERO, Dilia María (CERN)

Session Classification: Science Technology Session

Contribution ID: **49** Type: **not specified**

AI beam tuning

Tuesday, 17 August 2021 11:21 (3 minutes)

Summary

Presenter: WANG, David (TRIUMF)

Session Classification: Science Technology Session

Contribution ID: **50** Type: **not specified**

Calorimeter Simulation using quantum annealers

Tuesday, 17 August 2021 11:27 (3 minutes)

Summary

Presenter: DRECHSLER, Eric (SFU)

Session Classification: Science Technology Session

Contribution ID: **51** Type: **not specified**

Quantum Computing for Nuclear Physics: Improving Hamiltonian Encodings with the Gray Code

Tuesday, 17 August 2021 11:24 (3 minutes)

Summary

Presenter: GYSBERS, Peter (TRIUMF / UBC)

Session Classification: Science Technology Session