SESAPS 2022 Schedule

Session ID	Room Information	Session Type	Session Date	Session Time	Session Title	First Name	Last Name	Affiliation	Title	Abstract	Abstract ID
1A	Ballroom	Ancillary	11/3	**8:00am-8:15am**	Welcome						
A01	Ballroom A		11/3	**8:30am-10:06am**	Precision Measurements in Particle Physics	Lopamudra	Mukherjee	University of Mi	Light Dark Vect	The shift of futu	777475
						Julian	Heeck	University of Vi	Explaining CDF	The CDF collab	769221
						David	Maker		a generally cov	Abstract: In tha	767629
						Bruce	Toy		How Big is an E	This starts as a	752399
A02	Ballroom B		11/3	**8:30am-10:06am**	Exotic physical properties, measured and modeled	Cheng-Chien	Chen	University of Al	Topological Ma	Topological insu	758857
						Adam D.	Smith	University of Al	ElphonPy: A Si	Electron-phono	760445
						Luke	Moore	University of Al	First-Principles	High-Entropy M	764131
						Benjamin	Luna	Tennessee Tec	Not All Uniform	Set up a uniforr	777254
A03	Ballroom C		11/3	**8:30am-10:06am**	Biophysics and Medical Physics I	Jing	Chen	Virginia Tech	Mechanical limi	Contrasting mo	774860
						Anne	Staples	Virginia Tech	Tracheal micro	Insects have ev	777919
						Martina	Rodriguez Sala	The University	Effect of aerog	Aerogels have	767436
						Afsana	Sharmin	Dept. of Physic	Long Term Effe	Ultra-High Mole	775939
						Nathaniel	Hermann	Vanderbilt Univ	Modelling partit	Polydimethylsilc	770169
A04	Ballroom D		11/3	**8:30am-10:06am**	Physical Acoustics	Joel	Mobley	University of Mi	Microspheres, I	Physical ultrasc	764769
						Yuan	Gao	University of Mi	Acoustic Bubbl	A typical biome	805223
						Xinyue	Gong	University of Mi	Hall effect of ar	This research f	760547
						Omar	Yunis	University of Mi	Predictive Mod	Ultrasound loca	775895
						Brittney	Jarreau	Naval Researcl	Deep Machine	Acoustic non-d	758735
AB00		Ancillary	11/3	**10:06am-10:30am**	Coffee Break I						
B01	Ballroom A		11/3	**10:30am-12:06pm**	HEP Detectors and Software	Emanuele	Usai	University of Al	Machine learnir	At the dawn of	774695
						Jingyu	Zhang	Florida State U	Search for Exo	Although the 12	777191
						Bishnu	Acharya	University of Mi	Study of NOvA	Name: Bishnu A	763225
						Devesh	Bhattarai	The University	Electron Energ	The NuMI Off-A	763223
						Andrew	Dye	University of Mi	Freight Train' p	A large obstacl	768650
B02	Ballroom B		11/3	**10:30am-12:06pm**	Strongly correlated electrons and spins	R. Torsten	Clay	Mississippi Sta	Understanding	Despite more th	774696
						Ka-Ming	Tam	Louisiana State	Quantum Conv	Machine learnir	777088
						Gregory	Vieira	Rhodes Colleg	Observing and	Magnetic micro	763363
						Ruiqi	Zhang	Tulane Univers	Competing strip	Recent discove	776866
						Joshua	Moore	University of Mi	Connections be	The scaling of e	760833
B03	Ballroom C		11/3	**10:30am-12:06pm**							
B04	Ballroom D		11/3	**10:30am-12:06pm**	AMO I	Gombojav	Ariunbold	Mississippi Sta	On macroscopi	Collective beha	777290
						Kelly	Patton	Georgia Southe	Life at the edge	Theoretically, fo	760070
						Richard	Desantis	Dept of Energy	How a Galvanic	Within a circuit,	681523
BB00		Ancillary	11/3	**12:06pm-2:00pm**	Lunch Break I						
C01	Ballroom A		11/3	**2:00pm-4:06pm**	Charm and Neutrino physics	Jake	Bennett	University of Mi	Charm lifetime	Upgrades at the	754115
						Anil	Panta	University of Mi	CP asymmetry	A necessary co	754692
						Saroj	Pokharel	University of Mi	Amplitude anal	The Belle II exp	755246
						Jeffrey	Kleykamp	University of Mi	Recent Results	NOvA is a long	833805
						Luiz Ricardo	Prais	University of Mi	Search for Non	The phenomen	759284
						Nobuchika	Okada	University of Al	Affleck-Dine Le	We present a u	761341
C02	Ballroom B		11/3	**2:00pm-4:06pm**	Cosmology and Tests of General Relativity	Benjamin	Rose	University of Nc	Preparing for S	The Nanc	762767
						Anuradha	Gupta	University of Mi	Cosmography v	Precision cosm	775349
						Aneesh	Sivasankaran		Simulations of S	We study gas in	763371
						Sashwat	Tanay	University of Mi	Towards a mon	Leaver's metho	775613
						Purnima	Narayan	University of Mi	When can we id	Detections of g	759347
						Kai	Vylet	University of Vi	I-Love-Q in Ein	Einstein-aether	756826
						Patrick	Hu		Thermodynamic	We have create	774826
C03	Ballroom C		11/3	**2:00pm-4:06pm**	Advances in Nuclear Structure I	Ciprian	Gal	Mississippi Sta	Precise determ	A wide variety o	760975
						Zhengyu	Xu	University of Te	The first experi	Atomic nuclei a	764055
						Mark	Spieker	Florida State U	Nuclear-structu	If carefully chos	765501
						Timilehin	Ogunbeku	Mississippi Sta	Half-life measu	Nuclear transiti	758556
						Alicia	Palmisano-Kyle	University of Te	Constraining th	One of the bigg	766858
						Sapan	Luitel	Mississippi Sta	E17011 experir	The goal of exp	760284
C04	Ballroom D		11/3	**2:00pm-4:06pm**	Applied Physics & Instrumentation	Yuki	Abe	Southeastern L	Investigation of	This study expl	775824
						Denis	Aslangil	The University	2D Multi-mode	The flow compr	776469
						Rem	Danilin	University of Al	Line narrowing	Current work re	767890
						Sagar	Ghimire		Effect of low Ea	The authors ha	769554
						Bria	Storr	University of Al	Novel Microwa	This research f	757526
						Sabin	Kasparoglu	North Carolina	Characterizatio	The printed opt	776511
						Tawfik	Gaballah	Mississippi Sta	Fast-timing me	Variations in th	767641
						Charles	Jenkins	University of Sc	Setup of a Simi	The Cosmic Ra	775293
						IGOR	OSTROVSKII	University of Mi	Tabletop detec	The detectors c	774422

CB00		Ancillary	11/3	**4:06pm-4:30pm**	Coffee Break II						
D01	Ballroom A		11/3	**4:30pm-5:54pm**	Quantum Computing and Statistical Mechanics	Larry	Engelhardt	Francis Marion	Quantum Monti	I will describe th	763838
						Benjamin	Clark	Mississippi Sta	Parallelized Se	This talk will loc	775535
						Shriya	Haravu	University of Nc	Understanding	Shriya Haravu	775205
						Ratna	Khadka		RADIATIVE PF	We propose a r	771043
						Muhammad	Yusf		Quantum Algor	Quantum comp	770950
D02	Ballroom B		11/3	**4:30pm-5:54pm**	Scattering and microscopy	Lisa	DeBeer-Schmit	ORNL	Small-angle Ne	Neutron scatter	684787
						Devilal	Dahal	University of Sc	Origin and Stru	Based on a sys	775764
						Jordyn	Hales		Witnessing Ligl	Quantum comp	765145
						Durga	Paudel	Alabama Schoo	Nanostructure \	The nanostruct	774534
						Junior	Langa	Clemson Unive	Engineering Nic	Voltage-tunable	764017
D03	Ballroom C		11/3	**4:30pm-5:54pm**	Hot QCD Matter	Virginia	Bailey	Georgia State U	Studying the Qu	The Quark-Glu	775375
						Raghav	Kunnawalkam E	Vanderbilt Univ	Primordial plas	Relativistic hea	765531
						Michael	Reynolds	Vanderbilt Univ	Searching for J	Quark gluon pla	777251
						Yilun	Wu	Vanderbilt Univ	Identifying quer	Quantum chron	771718
D04	Ballroom D		11/3	**4:30pm-5:54pm**	AMO II	Kun	Wang	Mississippi Sta	Probing optoele	Molecules are t	757209
						Cass	Sackett	University of Vi	Bragg Interfero	Precision rotati	766018
						Mark	Edwards	Georgia Southe	Double-target E	We describe ar	754859
E01	The Pavilion	Poster	11/3	**6:00pm-7:30pm**	Poster Session						
F00	The Pavilion	Ancillary	11/3	**7:00pm-8:30pm**	Dinner						
G01	Lewis Hall 101	Ancillary	11/3	**8:30pm-??**	SPS/Student Social						
H01	Ballroom A		11/4	**8:30am-10:06am**	Neutrino Physics	Biswaranjan	Behera	University of Fl	The Search for	The main goal	833845
						Kohsaku	Tobioka	Florida State U	The Cabibbo an	The mixing ang	769979
						Hanyu	Wei	Louisiana State	Recent results	The MicroBooN	777490
H02	Ballroom B		11/4	**8:30am-10:06am**	Physics Education Research	Eric	Burkholder	Auburn Univers	We should be t	Problem-solving	758583
						Emily	Alicea-Munoz	Georgia Institut	Developing a co	Graduate Teac	771156
						Nathan	Davis		An Examinatior	The use of grou	751519
						David	Kordahl	Centenary Coll	Entanglement ii	The treatment	748964
H03	Ballroom C		11/4	**8:30am-10:06am**	Advances in Nuclear Structure II	Ahmad	Taninah	Mississippi Sta	Covariant dens	Covariant dens	755670
						Christopher	Gould	North Carolina	Fermi's favorite	In the early 193	735956
						Udeshika	Perera	Mississippi Sta	Single-particle \	The detailed in	753374
						Benjamin	Crider	Mississippi Sta	University of Ke	The University	763504
						Daniel	Araya	Mississippi Sta	Cross section n	In nuclear phys	761236
H04	Ballroom D		11/4	**8:30am-10:06am**	Device and materials characterization	Lingze	Duan	The University	Studying ultrafa	Over the last de	777502
						Nihar	Pradhan	Jackson State	Insulator-to-Me	Metal-to-insulat	774117
						Arjun	Dahal	University of Sc	Fabrication of H	Due to their uni	761656
						Anota	Ijaduola	University of Nc	Effect of the an	One of the mair	760544
						Aniruddha	Pan	Clemson Unive	Nonreciprocal e	We calculate th	759610
HB00		Ancillary	11/4	**10:06am-10:30am**	Coffee Break III						
J01	Ballroom A		11/4	**10:30am-12:06pm**							
J02	Ballroom B		11/4	**10:30am-12:06pm**	Gravitation	James	Bonifacio		Bootstrap boun	The conformal	763241
						Santosh	Bhandari	The University	Action for Caus	Causal Set The	775981
						Ayush	Dhital	University of Mi	Curved spaceti	Causal Set the	764096
						Jennifer	James	Space Physics	Short-Range Fo	Short-range mo	769312
						RICHARD	KRISKE	University of Mi	Capillary Action	Einstein's first v	774465
						He	Liu	University of Mi	Spacetime as a	Causal set theo	776433
J03	Ballroom C		11/4	**10:30am-12:06pm**	Advances in Nucleon Structure and Medium Modifcations Studies	Sanghwa	Park	Mississippi Sta	Nucleon Structi	The study of nu	764162
						Burcu	Duran	University of Te	Probing Flavor	The correlation	758972
						Taya	Chetry	Florida Internat	Exploring Hadr	Over the last fe	776268
J04	Ballroom D		11/4	**10:30am-12:06pm**	Medical Ultrasonics	Brent	Hoffmeister	Rhodes College	Backscatter tec	There is interes	757122
						Cecille	Labuda	University of Mi	Two-dimension	Brain is inhomo	771812
						Hiroto	Takayama	Southeastern L	Ultrasonic testi	Ultrasonic testi	775817
						Kashta	Dozier-Muhamr	The University	Toward the opt	Conventional ul	771869
						Sagar	Ghimire	University of Mi	Computational a	Aerogels are a	769585
JB00		Ancillary	11/4	**12:06pm-2:00pm**	Lunch Break II						
K01	Ballroom A		11/4	**2:00pm-4:06pm**	CP(T) Physics	Alibordi	Muhammad		Measurement c	We live in a ma	759286
						John	Waite	Morehead Stat	Axion-like partic	We offer a new	768070
						Suravinda	Kospalage	University of Mi	Overview of Be	Belle II is a par	757612
						Romulus	Godang	University of Sc	Search for New	We present a n	743266
						Quinn	Campagna	University of Mi	Probing BSM P	Several experir	754293
						Baisakhi	Mitra	University of Mi	Search for CPT	Muon g-2 data	743333
K02	Ballroom B		11/4	**2:00pm-4:06pm**	Astrophysics	Matthew	Route	University of Mi	GHz-Frequency	Ultracool dwarf	769966
						Aklant	Bhowmick	university of flo	Unveiling the fir	Supermassive I	773815
						Isaiah	Beauchamp	Western Kentu	New Analysis o	It is well known	767489
						Claire	Geneser		Tuning into plar	The Transiting	776523
						Hudson	Harner		Characterizing	Solar flares are	777954
						Ethan	Poore	Western Kentu	Studying Variat	Blazars are ext	761570

K03	Ballroom C		11/4	**2:00pm-4:06pm**	Fundamental Symmetries with Neutrons	Diyar	Talbayev	Tulane Univ	Symmetries an	Symmetries of	805267
						Stefan	Baessler	University of Vi	Neutron decay	In this talk, I wa	777828
						Jason	Fry	Eastern Kentuc	BL3: The Next	Neutron beta d	776481
						Joshua	Young	University of Ke	Improvements	The goal of the	762345
						Christopher	Crawford	University of Ke	NOPTREX: A N	The forward ne	775724
						Jon	Mills	Eastern Kentuc	Design of Mod	The NOPTREX	764406
						Himal	Acharya	University of Te	He-3 Spin trans	The electric dip	757436
K04	Ballroom D		11/4	**2:00pm-4:06pm**	Acoustics	Michael	Vera		Ocean acoustic	The effectivene	773923
						Zhiqu	Lu	University of Mi	A laboratory stu	A laboratory stu	774584
						Matthew	Mestayer	University of Mi	Speeds of sour	The speeds of	764354
						Madusanka	Madiligama	University of Mi	Detection of Cli	Rising ocean te	763542
						Guoqin	Liu	National Center	Vibration of wal	The laser-acou	763460
						Noah	Knutson		Acoustic Array	Microphone arr	775491
						William	Stewart		Artificial Intellig	Acoustic senso	774649
						Nathan	Hill		Vibrational char	Helical coils se	758956
KB00		Ancillary	11/4	**4:06pm-4:30pm**	Coffee Break IV						
L01	Triplett Alumni Center	Ancillary	11/4	**4:30pm-6:00pm**	Grad School Fair						
M00	Ballroom	Ancillary	11/4	**7:00pm-9:00pm**	Banquet						
N01	Ballroom A		11/5	**8:30am-10:06am**	Particle Spins and Moments	Laura	Kelton	University of Ke	Looking for Phy	In the search fo	777479
						On	Kim	University of Mi	Storage ring pr	The storage rin	721216
						Ishara	Fernando	University of Vi	The SpinQuest	The SpinQuest	764384
N02	Ballroom B		11/5	**8:30am-10:06am**	Physics and Astronomy Education	Christopher	Sirola		A Sampling of A	Instructors vers	776803
						Colin	Wallace	University of Nc	A Research-Inf	Physics and as	
						Eric	Burkholder	Auburn University		A well-known fi	683742
						L	Rivest	University of Mississippi		The purpose of	768514
N03	Ballroom C		11/5	**8:30am-10:06am**	Biophysics and Medical Physics II	Rana	Ashkar	Virginia Tech	Collective Dyna	Lipid bilayers, tl	775711
						Abash	Sharma	University of Mi	Adhesion and D	We present a n	740250
						yu	zhu	University of Mi	Lipid Vesicles I	Using molecula	744425
						Kira	Simpson	Fisk University	Physics of Wou	By studying the	777473
N04	Ballroom D		11/5	**8:30am-10:06am**	Optics and photonics	Brenden	Magill	Virginia Tech	Time-Resolved	The ability to cc	767380
						Kannatassen	Appavoo	University of Al	Mapping photo	Hybrid organic-	805289
						Bibek	Dhami	University of Al	Angle-resolved	Hybrid organic-	776431
						David	Hoxie	University of Al	Unsupervised l	Improving and	776935
						Jackson	Hanle	University of Al	Mechanism for	AlxGa1-xN is a	764971
						Nathan	Mayer	Bellarmine Univ	Exploring Cath	Cathodolumine	776381
						Ethan	Taylor	University of Al	Probing exciton	Using femtosec	777105
NB00		Ancillary	11/5	**10:06am-10:30am**	Coffee Break V						
P01	Ballroom A		11/5	**10:30am-12:06pm**	Dark Sector	Craig	Group	University of Vi	Light Dark Matt	The constituent	758900
						Lincoln	Curtis	University of Vi	Light Dark Matt	The particle nat	755642
						Gabija	Ziemyte	University of Ke	Design and Co	The MilliQan ex	759291
						Bartosz	Fornal	Barry University	Gravitational W	Theories of asy	691553
						Byungchul	Yu	University of Mi	Dark Matter Se	Dark matter is	748364
						Victor	Baules	University of Al	Vector boson d	We consider a	758112
P02	Ballroom B		11/5	**10:30am-12:06pm**	Gravitational Waves	Stephen	Taylor	Vanderbilt Univ	Pulsar Timing A	Pulsar-timing ar	761010
						William	Lamb	Vanderbilt Univ	Rapid and Flex	The nanohertz-	773085
						Shu Yan	Lau	University of Vi	The tidal prece	The tidal effect	763277
						Nihan	Pol	Vanderbilt Univ	Forecasting pul	Statistical anisc	776870
						Nathan	Johnson-McDaniel		Distinguishing t	The precession	761069
						Sumeet	Kulkarni	University of Mi	Spin Orientatio	One of the impo	749394
P03	Ballroom C		11/5	**10:30am-12:06pm**	Highlights of New Results and Future Nuclear Physics Facilities	Steffen	Strauch	University of Sc	Status of the M	In 2010, high-p	770171
						Murad	Sarsour	Georgia State U	Electron-Ion Co	The Electron Io	775818
						Lauren	Kasper	Vanderbilt Univ	MPGD-Based T	Success of scie	776700
						Vansh	Nagpal		A realistic even	An important pa	765786
P04	Ballroom D		11/5	**10:30am-12:06pm**	Physical Chemistry	Ryan	Fortenberry	University of Mi	Astrochemistry	The elemental a	821863
						Daniel	Nascimento	University of Mi	Exploring pertu	Resonant inela	833649
						Athena	Flint	University of Mi	The C3H3O Po	Formation mec	757844
						Halona	Dantes	University of Nc	Characterizatio	Non-equilibrium	757585
						Alexandria	Watrous	University of Mi	F12c: A New M	The F12c-TZ-c	765738
Q00	McMillan Boardroom	Ancillary	11/5	**1:00pm-2:30pm**	Executive Committee Meeting						

Poster Session						
First Name	**Last Name**	**Affiliation**	**Title**	**Abstract**	**Abstract ID**	**Poster #**
1.0 Applied Physics						
Mary	Bartlett	Bob Jones University	Single-Mode Microwave Impact on the Grain Boundaries and	LAGP is a glass-ceramic with pote	758974	1
Kallol	Chakrabarty	University of Alabama at Birmingham	Low-Temperature Plasma Synthesis of Cubic Boron Nitride	Low-temperature plasma synthesis	755622	2
Deblina	Das	University of Alabama at Birmingham	Detection of Heavy metals in soil samples of Birmingham urb	Chronic Obstructive Pulmonary Dis	767633	3
Jessica	Hamer	Rhodes College	RHOK-SAT: A 1U CubeSat to Characterize Novel Photovolta	RHOK-SAT is a 1U CubeSat collab	760239	4
David	Heson	Mississippi State University	Optimization of Optical Multilayers for Biological Sensing Usi	We developed an interactive comp	766356	5
Samuel	Lusby		Automated Gantry Test Bed for the Characterization and Dev	Uranium-238 or more colloquially k	775746	6
Axel	Quintanar-Pena	Eastern Kentucky University	Microrobot Fabrication and Characterization	Microtechnology is becoming incre	752387	7
William	Spooner		Effective Implementation of Non-Traditional Shaped Microwa	In today's growing market of 5G wi	763723	8
Ron	Unz	Institute for Clean Energy Technology	Need for Advanced Radiation Detection Simulations for Nucl	The Institute for Clean Energy Tec	775498	9
2.0 Cosmology, Astrophysics, and Gravitation						
Aniket	Khairnar	University of Mississippi	Approximate helical symmetry at null infinity	Compact binary systems emit grav	774423	10
Anna	McElhannon	University of Kentucky	Analysis of Extra Frequency Mode in the RR Lyrae Stars, EV	RR Lyrae (RRL) are radially pulsat	769956	11
Galilea	Ochoa	Western Kentucky University	Measuring the Position Angle and Separation of WDS 13550	Measurements were made for the	776519	12
Jeffery	Secrest	Georgia Southern university	Gravitational Phase Transition in the Early Universe	The universe is a dynamic system.	761100	13
Reese	Williams	Lander University	Characterizing and Developing a Shape Model for a Potentia	This study entails the development	761572	14
3.0 Atomic, Molecular, and Optical Physics						
James	Colgan	LANL	Photoionization of the oxygen diatomic molecule	The configuration-average distorte	728529	15
Joseph	Garcia	Auburn University	An investigation into low temperature dielectronic recombinat	In both astrophysical and laborator	777383	16
Bryson	Krause	University of Memphis	Periodic Nanohole Arrays with Enhanced Lasing and Sponta	Periodic arrays of air nanoholes in	749493	17
Michael	Pindzola	Auburn University	Antialpha particle impact ionization of He	Antialpha particle ionization cross s	728504	18
Brian	Shook	Department of Chemistry, Physics and Att	Enhanced Infrared Photosensitivity in DPP based Polymer S	Two-dimensional semiconductors p	700033	19
R	Smith	Francis Marion University	An Optical Microscopy Apparatus for the Advanced Undergra	Optical Microscopy is a part of func	749425	20
Rick	Watkins		Optical, electrical, and EPR studies of Polycrystalline Al:Cr:Z	Middle infrared (Mid-IR) lasers are	769938	21
3.0 Atomic, Molecular, and Optical Physics						
Fatemah	Alharthi		Dual Photonics Probing of Structural Abnormalities in Cells/T	Alzheimer's disease (AD) is the mo	749585	22
Sydney	Carr		STRUCTURE AND DIFFUSION OF LYSOZYME IN IONIC S	Lysozyme is an antimicrobial enzy	740591	23
Halona	Dantes	University of North Carolina at Chapel H	Giving Vitamins to the Most 'Basic' Bacterium	This project revolves around the JC	757571	24
Olivia	Denton	University of Tennessee at Chattanooga	Molecular dynamic simulation of the conformation state of hu	The misfolding of the protein alpha	757168	25
Blake	Lawler		Effect of Transducer Distance on Ultrasonic Backscatter Mea	Ultrasonic backscatter measureme	763758	26
Mackenzie	Smith		Tracking passive particles in baths of E.coli	With the aim to understand the dyn	755529	27
5.0 Condensed Matter Physics/Nanoscience						
RIDWAN	Ayinla	Department of Chemistry, Mississippi Stat	Highly ordered plasmonic Au nano prism on conductive and t	The generation of localized surface	773174	28
Sumit	Bera		Enhanced Dielectric Constant and Breakdown Voltage in Pol	The increasing use of electronic de	776738	29
Logan	Burnett	University of Alabama at Birmingham	Pressure Evolution of the Hubbard U in Rare-Earth Metals vi	Calculating the properties of rare-e	763871	30
Joseph	Duncan Jr.		Plasma Enhanced Chemical Vapor Deposition of few layer M	Due to its remarkable electronic ar	760422	31
Albert	Gapud	University of South Alabama	51V NMR studies on single crystal of A15 superconductor V3	The Martensitic transformation (MT	758927	32
Katlyn	Grimes	Mississippi State University	The Exploration of Thulium Halides and Oxyhalides as Stron	Quantum spin liquids (QSL) are ar	759616	33
Eli	Hellmig	Francis Marion University	Green Function Approach for Calculating Surface Electronic	Electronic band structure has prov	768400	34
Chloe	Jones	Western Kentucky University	Synthesis Of Novel Double Perovskites With 4d/5d</em	Past research into double perovski	777092	35
Tuyako	Khristoforova	Alabama School of Mathematics and Scie	Ensemble Tree Machine Learning Prediction of Superhard C	Superhard materials with a hardne	758867	36
Nicolas	Lam	University of Memphis	Low-Pressure Chemical Vapor Deposition of Ni and NiMo Su	Due in part to its large surface area	757615	37
Meleah	Lanier	Austin Peay State University	The Hunt for Red Structural Color	Structural color is an optical pheno	770103	38
August	Meads	Kennesaw State University	Search for Novel Magnetic Textures in Chiral Magnet C	Chiral magnetic oxides often host a	757858	39
Ryan	Perrin	Clemson University	Spin-orbit coupling effects on the band strucutre of prismatic	Core/shell nanowires (CSNWs) ex	764318	40
Jayden	Ratcliffe	Mississippi State University	Machine Learning Prediction of the Entropy Forming Ability f	High-entropy materials have a plet	760639	41
Anna	Sheets	Austin Peay State University	Synthesis and Characterization of Complex Chalcogenide Gl	Chalcogenide glasses are importar	768455	42
Michael	Steurer	Bob Jones University	Yttria as a secondary phase in LAGP for Solid State Battery A	Solid state batteries represent sign	759311	43
6.0 Low-Energy Nuclear Physics						
Stephan	Vajdic	Mississippi State University	Neutron Capture Cross Section Measurements of 112,113Cd	Neutron capture cross section info	774784	44

Melissa	Vaughn		Quantification of plasma using optical emission spectroscopy	The new era of flight has led to the	775291	45
Matthew	Wright	Institute for Clean Energy Technology	The Deterministic Environmental Radiation Intensity Survey-	Environmental radiological surveys	774300	46
7.0 Medium-Energy Nuclear Physics						
Lars	Hebenstiel	Western Kentucky University	GPU Accelerated Nuclear Cross Section Calculation in the G	Information on the nuclear radii an	777865	47
8.0 Particle Physics						
Luke	Carpenter	University of Tennessee	Searching for New Higgs Couplings in Muon Colliders. Woul	Muon Colliders are a great avenue	760335	48
Nicholas	Chambers	University of Arkansas	Machine Learning Implementation for Tau Neutrino Appearar	The Deep Underground Neutrino E	757118	49
Paul	Gebeline	University of Mississippi	Measurement of the Ξc+ Lifetime Using Belle II Simulation	We present a measurement of the	777869	50
Suravinda	Kospalage	University of Mississippi	Analysis B+- → Ks0 π+- π0 with Belle II Data	Belle II is a particle physics experir	757670	51
Erika	Pierre	Barry University	Dark Matter and Baryogenesis from Gravitational Waves	Gravitational wave detectors will b	757752	52
Matthew	Sizemore	University of Tennessee	Monitoring and Control Systems for Test Beam Activities for	In preparation for the high luminos	773810	53
Taylor	Sussmane	University of Tennessee	A reinterpretation of an LHC search for displaced vertices an	This reinterpretation analysis aims	762829	54
Ethan	Todd		Process Quality Control for HGCAL at Florida State Universit	The HL-LHC project aims to increa	775766	55
9.0 Physics Education and Outreach						
Shiva	Basir		An instrument for predicting performance in introductory phys	Physics education research (PER)	753384	56
Matthew	Boone	University of Tennessee at Chattanooga	A LEGO Model of the Kibble Watt Balance for Physics Educa	In 2019, the International System o	760539	57
Sumeet	Kulkarni	University of Mississippi	Bringing Gravitational Waves into the Classroom: Science O	The Laser Interferometer Gravitatio	749471	58
Rebecca	Strain	Auburn University	Video Analysis of Group Interactions in an Active-Learning C	One of the most important pieces o	770024	59
11.0 Statistical and Nonlinear Physics						
Leah	Hartman	Western Kentucky University	Experimental Study of Kramers' Rate in a Magnetically Drive	A Duffing oscillator is a damped, p	777531	60
12.0 Instrumentation						
Tawfik	Gaballah	Mississippi State University	Fast-timing measurements using LaBr3(Ce) detectors in the	Variations in the proton and neutro	767696	61
Alexander	Meredith	Georgia College & State University	The Georgia PEAcH: A Portable Electrostatic Accelerator	In collaboration with the University	751684	62
Ethan	Smith	Mississippi State University	Compton Polarimetry in the Electron-Ion Collider	Electron polarimetry is to be an ess	767387	63
Zheng Yu	Wong	Rhodes College	Designing Satelite Flight Software	When developing a CubeSat, man	767478	64
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Kathryn	Evancho	Clemson University	Rapid Electrical Characterization for Superconducting Thin F	Epitaxially-grown superconducting	761558	65
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Eliza	Howard	Rhodes College	Examining the Linearity of Silicon Detectors in the Nab Expe	When neutrons are outside of a nu	761853	66
16.0 Acoustics						
Amalia	Bay	Rhodes College	Ultrasonic Parametric Imaging of the Brain	Advances in transcranial ultrasoun	764125	67
Wayne	Carpenter	University of Miss, National Center for Phy	Determining the Relationship Between Observed Algal Activi	A Single Frequency Acoustic Atten	761523	68
Bradley	Goodwiller		Quantifying Sea-Turtle Impacts on Turtle-Excluder-Devices ir	Several species of sea turtles nativ	757906	69
Bin	Liang	University of Mississippi	Infrasound from tornadoes	Tornadoes are known to radiate int	752099	70
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Jonathan	Dotson		Computational Characterization of Aluminum Nitride Clusters	Aluminum Nitride clusters are esse	777056	71
Noah	Garrett		F12+DFT Quartic Force Fields for Cost-Effective Theoretical	CCSD(T)-F12 and DFT calculation	777273	72
Charles	Palmer	University of Mississippi	Fluoro Hydrogen Peroxide and Other Substituted Peroxides a	Fluorine's hostile nucleosynthetic e	776342	73