

**Executive Officers**

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NB. EMail addressed to [ghpexecutive@anl.gov](mailto:ghpexecutive@anl.gov) will reach all members of the Executive.

Join GHP by following a link on the lower-right of our web page; namely, from:

<https://engage.aps.org/ghp/home>.

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## 1 Elections

Elections have opened for four positions in the GHP Executive (Vice-Chair, Member-at-Large, Student/Early Career Member-at-Large, and Secretary-Treasurer) in 2021. Garth Huber (Past Chair), Phiala Shanahan (Member-at-Large), and Astrid Hiller-Blin (Early Career Member at Large) will have completed their terms. Ramona Vogt (Secretary-Treasurer) will have completed two terms in the office and cannot run for re-election. While she will not completely abandon the GHP, she has opted to move on and wreak havoc in other APS activities...

Our rules state that: *the Committee shall nominate at least two candidates for the offices of Vice-Chair and for the open position of Member-at-Large; the slate of candidates will be balanced as much as possible to ensure wide representation amongst the various fields of physics included in the GHP's membership; the Nominating Committee shall be chaired by the immediate Past Chair and shall include four members in addition to its Chair, one of whom shall be appointed by the APS.*

The GHP election opened on 1 November 2021. The excellent slate of candidates was selected by the GHP Nominating Committee:

<b>Nominating Committee</b>			
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Garth Huber ( <i>Chair</i> )			
<a href="mailto:huberg@uregina.ca">huberg@uregina.ca</a>			
John Arrington <a href="mailto:jarrington@lbl.gov">jarrington@lbl.gov</a>	Susan Gardner <a href="mailto:svg@pa.uky.edu">svg@pa.uky.edu</a>	Spencer Klein <a href="mailto:srklein@lbl.gov">srklein@lbl.gov</a>	Fred Olness <a href="mailto:olness@smu.edu">olness@smu.edu</a>

Attracting and serving a diverse and inclusive membership worldwide is a primary goal for APS. In calling for nominations, we wish to remind you how important it is to give full consideration to qualified women, members of underrepresented minority groups, and scientists from outside the United States. There is strength in diversity and so the Executive would like to see nominations from across the entire spectrum of GHP's membership.

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## 2 Fellowship

The GHP Fellowship Committee, chaired by GHP Vice-Chair Julia Velkovska, that handled the nominations was:

<b>Fellowship Committee</b>		
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Julia Velkovska ( <i>Chair</i> )		
<a href="mailto:julia.velkovska @vanderbilt.edu">julia.velkovska @vanderbilt.edu</a>		
Sebastian Kuhn <a href="mailto:kuhn@jlab.org">kuhn@jlab.org</a>	Barbara Pasquini <a href="mailto:barbara.pasquini@unipv.it">barbara.pasquini@unipv.it</a>	Mike Strickland <a href="mailto:mstrick5@kent.edu">mstrick5@kent.edu</a>

We remind the GHP that each year the APS allocates a number of Fellowship Nominations to a Topical Group. That number is based primarily on membership. Since we are in the neighborhood of 500 members, we are allocated TWO Regular nominations.

In 2020, two GHP members became APS Fellows through GHP. They are Christina Markert (UT Austin) and Swagato Mukherjee (BNL).

Christina's citation is:

*“For scientific leadership of experimental studies of hadronic resonances and their role as probes of the dynamics of relativistic heavy-ion collisions and chiral symmetry restoration in deconfined QCD matter.”*

Swagato’s citation reads:

*“For seminal work employing ab initio lattice quantum chromodynamics (QCD) to uncover fundamental information on the QCD phase diagram at finite temperatures and baryon density, and for the creative use of these methods to provide limits on the location of the critical point in heavy-ion collisions.”*



Figure 1: (Left) Christina Markert (Right) Swagato Mukherjee

The instructions for nomination may be found at

<http://www.aps.org/programs/honors/fellowships/nominations.cfm>

The entire process is now online.

The Executive urges members of GHP to nominate colleagues who have made advances in knowledge through original research and publication or made significant and innovative contributions in the application of physics to science and technology. They may also have made significant contributions to the teaching of physics or service and participation in the activities of the Society. We also note that maintaining a diversity in our Fellows can broaden the impact of the GHP.

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### 3 Dissertation Award

The GHP Dissertation Award was established in February 2012, thanks to significant contributions from Brookhaven Science Associates (the management contractor for the Brookhaven National Laboratory), Jefferson Science Associates, LLC (the management contractor for Jefferson Lab), Universities Research Association (the management contractor for Fermi National Accelerator Lab) and personal contributions from some of our members.

The Center for Frontiers in Nuclear Science (CFNS) provided a generous donation to permanently endow the award. Their donation, along with a contribution from the GHP General Fund, allowed the GHP to make the award an annual one, as has long been hoped.

Therefore a call went out for nominations for the 2022 GHP Dissertation Award with a deadline of 1 August 2021.

The Award is a \$1500 stipend and a travel allowance to give an invited plenary presentation at the next GHP Biennial Meeting, to be held in Minneapolis, MN from 12-14 April 2023.

Ian Clöet is Chair of the Dissertation Award Committee while Garth Huber is Past Chair. The members are:

<b>Dissertation Award Committee</b>	
Ian Clöet ( <i>Chair</i> ) <a href="mailto:icloet@anl.gov">icloet@anl.gov</a>	Garth Huber ( <i>Past Chair</i> ) <a href="mailto:huberg@uregina.ca">huberg@uregina.ca</a>
David d'Enterria <a href="mailto:dde@cern.ch">dde@cern.ch</a>	Jin Huang <a href="mailto:jhuang@bnl.gov">jhuang@bnl.gov</a>
Ulrich Heinz <a href="mailto:heinz.9@osu.edu">heinz.9@osu.edu</a>	Yordanka Ilieva <a href="mailto:ilieva@sc.edu">ilieva@sc.edu</a>

The submissions are judged according to the following criteria: quality of written dissertation (40%), contribution of student to research (30%), impact of work (20%), and broader involvement of student in the community (10%).

The committee reviewed a number of outstanding theses and we are grateful for their service. A call for nominations for the 2023 GHP Dissertation Award will be made early next year with a likely deadline of 1 July 2022 (or earlier). More information will be forthcoming in the March 2022 newsletter.

### 3.1 2022 GHP Dissertation Award Winner



Figure 2: Davide Giusti

The recipient of the 2022 GHP Dissertation Award is Dr. Davide Giusti, with the citation “*For achievements in applying a new non-perturbative approach to evaluate QED and strong isospin breaking effects on hadron masses and weak decays using lattice QCD+QED simulations*”.

Davide received his Ph.D. in March 2020 from the University Roma Tre, Italy, with a dissertation titled “*Isospin Breaking Corrections to Masses and Hadronic Processes on the Lattice*”, under the supervision of Prof. Vittorio Lubicz and Dr. Silvano Simula. Davide has received several awards, including the Sergio Fubini Prize from the National Institute for Nuclear Physics in Italy, the Antonio Stanghellini Prize from the Italian Physical Society, which is awarded to the best Italian Ph.D. student in Theoretical Particle Physics, and the Enrico Persico Fellowship from the Accademia dei Lincei.

After his Ph.D. Davide became a postdoctoral research scientist in November 2019 at the University of Regensburg. In June 2020 Davide became an Assistant Professor (Akademischer Rat auf Zeit) at the University of Regensburg where he continues his lattice QCD research. He is one of the active young experts in large-scale lattice calculations and he has made significant contributions to the theoretical determination of the muon anomalous magnetic moment, currently one of the most promising places to test the limits of the Standard Model of particle physics and look for evidence of new physics.

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## 4 GHP Program at the 2022 APS April Meeting

The 2022 APS April meeting will be in person, with possible remote participation, 9-12 April 2022 in New York City. See

<https://april.aps.org>

for details and abstract submission. The abstract submission deadline for the April meeting is 20 December 2021.

GHP participates in the annual APS April Meeting, which is also the primary meeting of the unit in even years. Roughly 100 of our members attend the APS April meeting each year.

GHP is allocated two invited sessions at the April meetings. We often organize joint sessions with other units, in order to raise our profile by increasing the number of sessions sponsored by the GHP. (The maximum currently possible is four.)

The Program Committee for the 2022 APS April meeting is

<b>GHP Program Committee</b>		
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Dave Gaskell ( <i>Chair</i> )		
	<a href="mailto:gaskelld@jlab.org">gaskelld@jlab.org</a>	
Shujie Li	Simonetta Liuti	Rosi Reed
<a href="mailto:shujie.li@lbl.gov">shujie.li@lbl.gov</a>	<a href="mailto:sl4y@virginia.edu">sl4y@virginia.edu</a>	<a href="mailto:rosijreed@lehigh.edu">rosijreed@lehigh.edu</a>
Derek Teaney		Ramona Vogt
	<a href="mailto:derek.teaney@stonybrook.edu">derek.teaney@stonybrook.edu</a>	<a href="mailto:r1vogt@lbl.gov">r1vogt@lbl.gov</a>

In addition to the invited sessions, we suggest that GHP members who do submit abstracts to the April meeting consider submitting their abstracts to the GHP sorting categories:

**E01** Hadronic Physics: General

**E02** Light Mesons and Baryons

**E03** Heavy Flavor Hadrons

**E04** Hadron Spectroscopy and Exotics

**E05** Nucleon Structure and Nucleon Spin

**E06** QCD and Partonic Structure of Nuclei

**E07** Hot and Cold Nuclear Matter

**E08** Electroweak Reactions

**E09** Mini-Symposium: From QCD Matter to Dynamical Correlations in Heavy Ion Collisions

**E10** Mini-Symposium: Detector Design and Development for EIC

## E11 Mini-Symposium: Nucleon Structure and PDFs at Large $x$

Some of the sorting categories have again been updated. Note also that this year we are organizing three mini-symposia and welcome submissions to these categories.

GHP will co-sponsor two sessions with DNP: Implications of the Isobar Run at RHIC and Nucleon Structure at Large  $x$ . There will also be one standalone session, Implications of the Instrumentation on the Physics Reach of EIC.

The full complement of GHP-sponsored sessions, as well as other sessions of interest to our members will be detailed in the March 2022 edition of the newsletter.

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## 5 GHP 2021 Workshop Summary

The 9<sup>th</sup> Workshop of the APS Topical Group on Hadronic Physics (GHP) – originally scheduled as an in-person meeting in Sacramento – was held virtually on 13-16 April 2021. The workshop website can be found at <https://indico.jlab.org/event/412/>.

The meeting had a record 293 registered participants, where the small registration fee (\$30 for members with students free) significantly increased GHP revenue. So much so, that together with other donations we were able to make the GHP Dissertation Award annual rather than biennial. The workshop had an excellent program, consisting of 19 plenary speakers and 28 parallel sessions with a total of 144 presentations, which were both invited and contributed.

The plenary schedule included a prize session on the Friday afternoon of the meeting, that had talks from the recent GHP sponsored APS Fellows – Daniël Boer (2019), Barbara Pasquini (2020), and David Richards (2020) – together with a presentation from the 2021 GHP Dissertation Award recipient Weizhi Xiong. The plenary program also included talks covering recent results from RHIC and the Jefferson Lab 12 GeV program, overview talks discussing nucleon structure (spin, unpolarized, and in 3 dimensions) and hot QCD, the application of lattice QCD calculations and quantum simulations, and an overview of the future Electron Ion Collider. The GHP Business Meeting was held on the Thursday afternoon of the meeting, and included updates from the GHP Executive Committee and funding agency/Lab presentations from Tim Hallman (DOE), Allena Opper (NSF), Robert McKeown (JLab), and Dmitri Denisov (BNL).

The 28 parallel sessions provided a comprehensive overview of many of the exciting recent developments in hadron physics from around the world, but particularly those associated with the Jefferson Lab and RHIC programs, and the forthcoming Electron-Ion Collider. Each parallel session usually consisted of a mix of experiment and theory presentations, with sessions focused on topics that included: proton mass, symmetry violation and new physics, quantum information science, small systems and collectivity, quark gluon plasma, ultra-peripheral collisions, extreme matter, quarkonium production, jets, fragmentation functions, hadron spectroscopy, meson decays, exotic searches, TMDs, GPDs, PDF phenomenology, meson and baryon structure, nucleon spin and small- $x$ , nuclear PDFs, and hadrons in nuclei. Copies of the presentation slides are available at <https://indico.jlab.org/event/412/timetable/#20210413.detailed>.

The GHP program committee members were:

- Fatma Aslan (Jefferson Lab)
- Astrid Hiller Blin (Jefferson Lab)
- Vincent Cheung (UC Davis)
- Ian Cloët (Argonne National Laboratory) [co-chair]
- Lamiaa El Fassi (Mississippi State University)
- Oleg Eyser (Brookhaven National Laboratory)
- Susan Gardner (University of Kentucky)
- Dave Gaskell (Jefferson Lab) [co-chair]
- Tim Hobbs (Southern Methodist University)
- Garth Huber (University of Regina)
- Sookhyun Lee (University of Michigan)
- Amy Nicholson (The University of North Carolina)
- Dennis Perepelitsa (University of Colorado-Boulder)
- Alexei Prokudin (Penn State Berks)
- David Richards (Jefferson Lab)
- Susan Schadmand (IKP Juelich)
- Bjoern Schenke (Brookhaven National Laboratory)
- Ralf Seidl (RIKEN)
- Phiala Shanahan (MIT)
- Matthew Sievert (New Mexico State University)
- Michael Strickland (Kent State University)
- Richard Trotta (Catholic University of America)
- Julia Velkovska (Vanderbilt University)
- Ramona Vogt (LLNL & UC Davis)

We sincerely thank all committee members for arranging an excellent 9<sup>th</sup> GHP Meeting. We look forward to an in-person 10<sup>th</sup> GHP Meeting to be held on 12-14 April 2023 at the Hilton Hotel in Minneapolis, which immediately precedes the 2023 APS April Meeting held in the same location. The 10<sup>th</sup> GHP Meeting will be co-chaired by Julia Velkovska (Vanderbilt) and the soon-to-be-elected GHP Vice-Chair. Plenary speakers will include the GHP Fellows from 2021 and 2022, as well as the 2022 and 2023 Dissertation Award winners.

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## 6 Meeting Summaries

NB. We would be pleased to receive summaries from GHP membership of meetings that they have organized or attended. Please send the summaries to the GHP Secretary-Treasurer.

### 6.1 14<sup>th</sup> Quarkonium Working Group Meeting

(Communicated by Vincent Cheung [cheung27@llnl.gov](mailto:cheung27@llnl.gov))

QWG2020(2021), the 14th International Workshop on Heavy Quarkonium (<https://indico.cern.ch/event/838970>), organized by the members of the Quarkonium Working Group (QWG), was held virtually at UC Davis from March 15-19, 2021. The local organizing committee was chaired by Ramona Vogt, LLNL and adjunct professor of physics at UC Davis

and included Manuel Calderon and Daniel Cebra from UC Davis; Feng Yuan (LBNL); Jianwei Qiu (Jefferson Lab); Peter Petreczky (BNL); and Vincent Cheung (LLNL and UC Davis). Vincent was the webmaster meeting host. The meeting program is planned by the QWG conveners: Geoff Bodwin (ANL); Nora Brambilla (TU Munich); Roberto Mussa (INFN Torino); Vaia Papadimitriou (FNAL); and Antonio Vairo (TU Munich); with the assistance of the theory and experiment topical conveners and experimental collaboration liaisons.

The workshop provides an opportunity for experimentalists and theorists to gather to discuss topics related to quarkonium physics. The scientific program includes sessions on production and decay of quarkonium states; their spectroscopy, including exotic states, in-media production and suppression of quarkonium; Standard Model and Beyond the Standard Model tests employing quarkonium. There was also a session on future facilities for quarkonium studies.

The workshop was originally planned to be held in Davis in September of 2020 but was rescheduled to March 2021 due to the COVID-19 pandemic. It had been hoped initially that the postponement would allow a live meeting but it was subsequently decided that the meeting had to be virtual.

Although the workshop was held virtually for the first time in its history, most of the participants were already well adapted to remote attendance and the meeting ran very smoothly. Due to the virtual conference venue, a record number of 243 participants registered for the meeting.

There are advantages and disadvantages to the virtual meeting format. The advantages are closely correlated with the disadvantages. The study of quarkonium physics is truly international and to accommodate the necessary global participation, involving multiple time zones, the daily meeting sessions were split into two 3-hour sessions beginning at 07:00 and 14:00 respectively. Compared to a normal in-person QWG meeting, the program was condensed by about 30% to fit into the abbreviated online schedule. All sessions of the QWG meetings are plenary. The meeting sessions used the UC Davis Zoom while the post-session discussions were held on Gather.Town sponsored by Jefferson Lab.

Highlights from the meeting included new results on quarkonium spectroscopy and decays from BES III and Belle; pair production of quarkonium states and properties of exotic four- and five-quark states; determination of the strong coupling constant using quarkonium; production properties in proton-proton and heavy-ion collisions at the LHC; and, to end the workshop, talks on upcoming experiments at new and planned international facilities, including first results from GlueX at Jefferson Lab and Belle-II at KEK in Japan and future prospects at PANDA at GSI in Germany and at the Electron-Ion Collider at Brookhaven Lab. With the exception of the first morning, the sessions were all recorded. The recordings, as well as the slides from the individual presentations, can be found on the meeting website.

The next QWG workshop is planned for fall 2022 and will take place in Germany.

## 6.2 CHARM 2020 (10<sup>th</sup> International Workshop on Charm Physics))

(Communicated by P. Roig ([paroig@gmail.com](mailto:paroig@gmail.com)) for the LOC)

CHARM 2020, the 10th International Workshop on Charm Physics (<https://indico.nucleares.unam.mx/event/1488/>), was held virtually at UNAM, Mexico City, from 31 May to 4 June, 2021. The Local Organizing Committee (LOC) was composed of José

Benítez (Sonora Univ.), Heriberto Castilla (Cinvestav), Eduard de la Cruz Burelo (Cinvestav), David Delepine (DCI-Guanajuato), Jens Erler (PRISMA+ Cluster of Excellence, INP, Mainz), César Fernández Ramírez (ICN-UNAM, co-chair), Iván Heredia de la Cruz (Cinvestav), Gabriel López Castro (Cinvestav), Pablo Roig (Cinvestav, chair), Alberto Sánchez Hernández (Cinvestav) and Genaro Toledo (IF-UNAM). The meeting program was proposed by the LOC upon taking into account the suggestions from the International Advisory Committee of the Charm Conference Series.

The purpose of the CHARM 2020 Workshop was to bring together particle and nuclear physicists working in the field related to physics of the charm quark to discuss recent results in this area, including the impact on and from theory as well as projections for results to be expected from upcoming experimental facilities. As 2020 marked the 50<sup>th</sup> anniversary of the GIM mechanism, giving rise later to the November revolution with the discovery of the charm quark, a special talk given by Prof. Luciano Maiani opened the event. The scientific program of this conference series includes sessions on the status and future of charm facilities; charmed meson and baryon spectroscopy; exotics; production of charm and charmonia; hidden and open charm in media; light hadronic spectroscopy from decays of charm and charmonia; leptonic, semileptonic, radiative and rare charm decays (including new physics scenarios for charm decays);  $D$  oscillations and CP violation; and tau lepton physics. As a novelty of this edition, the plenary program was closed with HFLAV and PDG reports on charm physics.

The workshop was originally planned to be celebrated in Universum (UNAM's science museum) in May 2020, but was delayed one year due to the COVID-19 pandemic. We hoped that fourteen months after the pandemic started it would be possible to have an in-person event, but at the beginning of February 2021 we realized this would not be possible and announced that the meeting had to be virtual.

It was the first time this event went online. However, the vast majority of the participants already had experience in other online meetings and the workshop was successful. As it has happened regularly in the events during the pandemic, we had a record number of participants, 234, registered for this workshop.

The big drawback of online events is that unless one reduces the schedule significantly (three hours a day, or so) it is impossible to accommodate the agenda so that it is comfortable to follow worldwide. We reduced by 10%, approximately, the session time with respect to the previous edition in Novosibirsk (Russia). Still, we did not like to cut the program further in order to preserve the spirit of the conference, with a wide range of plenary talks covering the main areas of research in the field, ensuring balance and equity. The daily meeting sessions were split into two-hour blocks with short breaks in between, beginning at 07:00 and finishing between 13:00 and 14:00 (local times). Monday and Wednesday included only plenary talks and the parallel program was scheduled in the last block of Tuesday, Thursday and Friday. The meeting sessions used UNAM's Zoom, where the breakout rooms allowed for the different parallel sessions. The total number of attendants in the simultaneous sessions was in the ballpark of those in the plenary program.

LHCb recalled its celebrated discovery of CP violation in  $D^0$  decays (which happened after the previous CHARM workshop), and presented publicly, for the first time, the observation of a nonzero mass difference between neutral charm-meson eigenstates, the subject of a CERN seminar the week after CHARM 2020. Other highlights of this workshop included new results on spectroscopy and decays from BES III, Belle, CMS, KEDR and LHCb; production properties in proton-proton and heavy-ion collisions at the LHC; and talks on forthcoming experiments at new and planned international facilities, including first results from GlueX

(Jefferson Lab) and Belle-II (KEK, Japan) and future prospects for PANDA (GSI, Germany). The status and perspectives of the two super-charm-tau factory projects (in China and Russia) were reported and their physics opportunities praised. The slides of the presentations can be found on the meeting website (we decided not to record the talks and declined broadcasting the event).

CHARM 2020 was probably the first meeting that Simon Eidelman, who was a fundamental and enthusiastic participant in this CHARM conference series, was unable to attend. We ended the event wishing having him back in the next CHARM conference in Shanghai (May 2023), and it is terribly sad to realize now this will not be possible. We will deeply miss a dear friend, an outstanding physicist, and a wonderful person. We will remember him always willing to help, specially the youngest, with a permanent smile. This workshop is, deservedly, dedicated to his memory.

### 6.3 Lattice21: The 38<sup>th</sup> International Symposium on Lattice Field Theory)

(Communicated by P. Shanahan ([phiala@mit.edu](mailto:phiala@mit.edu)) and W. Detmold ([wdetmold@mit.edu](mailto:wdetmold@mit.edu)))

The 38<sup>th</sup> International Symposium on Lattice Field Theory (Lattice 2021) was hosted virtually by MIT in late July and was the largest ever iteration of the conference in its almost 40 year history. More than 800 participants from around the world gathered virtually on Zoom, Slack and in Gather.Town for a week presenting the latest advances in lattice QCD and related areas, in many cases meeting friends and colleagues for the first time in several years. To accommodate the time zones of all participants, sessions were held on an almost 24 hour schedule with over 500 parallel talks on Zoom and around 50 posters in a virtual Gather.Town environment. Plenary talks were presented on 25 topics spanning the field, as well as on the physics of the EIC and on the status of diversity and inclusion in physics. The week was capped by a public lecture on “QCD: the glory and the power” by Frank Wilczek that summarized the many triumphs of QCD over the years, which was streamed on YouTube to a broad audience around the world. While the virtual format had its limitations, the conference brought together the most diverse audience in the series history, also attracting the largest number of students ever to attend this meeting. We look forward to the next instantiation of Lattice in Bonn in 2022 which will hopefully be able to take place in person.

## 7 Forthcoming Hadron Physics Meetings

Meetings of interest to GHP’s membership are listed at  
<https://sites.google.com/lbl.gov/hadronic-physics-conferences/home>, maintained by John Arrington and Shujie Li at LBNL. In this connection, if there is a meeting you feel should be included, please send the appropriate information to John Arrington ([jarrington@lbl.gov](mailto:jarrington@lbl.gov)). The list here is based on this page, with some additions from the ECT\* and INT list of upcoming programs.

Covid-19 continues to be an issue for conferences. Many have been held virtually, as seen in the summaries above. Others are beginning to try to opt for hybrid meetings, such as the upcoming APS April meeting, to be held in New York City with a virtual component. Some GHP members at universities may find it easier to travel than members at national laboratories. Because the situation is still ongoing, meeting organization needs to become more flexible. While reducing conference travel is beneficial to the environment, there is a desire to meet in person again and have the casual interactions that virtual environments

cannot easily allow for.

- LC2021 - Physics of Hadrons on the Light Front (Jeju, South Korea, 29 November- 4 December 2021) <https://indico.cern.ch/event/938795/>
- Transversity 2022: 6<sup>th</sup> International Conference on Transverse Polarization Phenomena in Hard Processes (Pavia, Italy, 23-27 May 2022) <https://agenda.infn.it/event/19219/>
- Origin of the Visible Universe: Unraveling the Proton Mass (INT Workshop INT-20-77W, Seattle, WA, USA, 6-10 December 2021)
- Hadronic Parity Nonconservation II (INT Workshop INT-19-76W, Seattle, WA, USA, 24-27 January 2022) <http://www.int.washington.edu/PROGRAMS/19R-76/>
- Beyond the Standard Model Physics with Nucleons and Nuclei (INT Program INT-20-2b, Seattle, WA, USA, 7-11 February 2022)
- Machine Learning for Nuclear Theory (INT Program INT-22-1, Seattle, WA, USA, 14 March - 22 April 2022)
- Charming Clues for Existence (MIAPP, Technical University of Munich, Garching, Germany, 7 March - 1 April 2022) <https://www.munich-iapp.de/charmingclues>
- QM 2022: The 29<sup>th</sup> International Conference on Ultrarelativistic Nucleus-Nucleus Collisions (Krakow, Poland, 4-10 April 2022) <https://indico.cern.ch/event/895086/>
- CIPANP 2022: 14<sup>th</sup> International Conference on the Intersections of Particle and Nuclear Physics (Lake Buena Vista, FL, USA, 31 May - 5 June 2022)<https://agenda.hep.wisc.edu/event/1644/>
- Theoretical and Experimental Challenges in Flavour Hadrons, Heavy Quarkonia and Multiquark Physics (ECT\* Workshop, Trento, Italy, 6-10 June 2022) <https://www.ectstar.eu/workshops/theoretical-and-experimental-challenges-in-flavour-hadrons-heavy-quarkonia-and-multiquark-physics-2/>
- Jet Quenching in the Quark-Gluon Plasma (ECT\* Workshop, Trento, Italy, 13-17 June 2022) <https://www.ectstar.eu/workshops/jet-quenching-in-the-quark-gluon-plasma/>
- SQM: International Conference on Strangeness in Quark Matter #20 (Busan, South Korea 13-18 June 2022) <https://uia.org/s/ca/en/1300533441>
- The XIV<sup>th</sup> Quark Confinement and the Hadron Spectrum Conference (Stavanger, Norway, 1-6 August 2022) <https://www.ux.uis.no/confxiv/>
- Parton Distributions and Nucleon Structure (INT Workshop INT-22-82W, Seattle, WA, USA, 12-16 September 2022)
- Revealing Emergent Mass Through Studies of Hadron Spectra and Structure (ECT\* Workshop, Trento, Italy, 12-16 September 2022) <https://www.ectstar.eu/workshops/revealing-emergent-mass-through-studies-of-hadron-spectra-and-structure/>
- Opportunities with JLab Energy and Luminosity Upgrade (ECT\* Workshop, Trento, Italy, 26-30 September 2022) <https://www.ectstar.eu/workshops/opportunities-with-jlab-energy-and-luminosity-upgrade/>

- QWG 2022 - The 15<sup>th</sup> International Workshop on Heavy Quarkonium (26-30 September 2022, GSI Darmstadt, Germany) <https://indico.gsi.de/event/13128/>
- Heavy Flavor Production in Heavy-Ion and Elementary Collisions (INT Program INT-22-3, Seattle, WA, USA, 3-28 October 2022)
- Gordon Research Conference on Photonuclear Reactions: Frontiers in Nuclear and Hadronic Physics (Holderness, NH, USA, 7-12 August 2022)  
<https://www.grc.org/photonuclear-reactions-conference/2020/>
- Hard Probes 2023: The 11<sup>th</sup> International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Aschaffenburg, Germany, March 2023)  
<https://inspirehep.net/conferences/1769332>
- HF-WINC 2020: The 8<sup>th</sup> International Workshop on Heavy Flavour Production in Nuclear Collisions (Torino, Italy, 12-15 October 2020)  
<https://indico.cern.ch/event/883427/> **Postponed, no new date given.**

GHP members might also be interested in other conferences and workshops listed at the following sites:

- ECT\* ... [www.ectstar.eu](http://www.ectstar.eu)
- INT ... [www.int.washington.edu/PROGRAMS/programs\\_all.html](http://www.int.washington.edu/PROGRAMS/programs_all.html)
- JLab ... [www.jlab.org/conferences](http://www.jlab.org/conferences)
- NuPECC ... <http://www.nupecc.org/index.php?display=events>

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**\* Disclaimer \***

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THIS GHP NEWSLETTER WAS EDITED BY RAMONA VOGT FOR THE EXECUTIVE COMMITTEE.