



ASSOCIATION FOR SYMBOLIC LOGIC

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ASL NEWSLETTER

September 2023

- **2023 Sacks Prize.** The ASL invites nominations for the 2023 Sacks Prize for the most outstanding doctoral dissertation in mathematical logic. Nominations must be received by September 30, 2023. The Sacks Prize was established to honor the late Professor Gerald Sacks of MIT and Harvard for his unique contribution to mathematical logic, particularly as adviser to a large number of excellent Ph.D. students. The Prize was first awarded in 1994 and became an ASL Prize in 1999. The Fund on which the Prize is based is now administered by the ASL and the selection of the recipient is made by the ASL Committee on Prizes and Awards. The Sacks Prize will consist of a cash award plus five years free membership in the ASL. For general information about the Prize, visit <http://aslonline.org/other-information/prizes-and-awards/>. Anyone who wishes to make a nomination for the 2023 Sacks Prize should consult the webpage <http://aslonline.org/other-information/prizes-and-awards/sacks-prize-recipient/sacks-prize-nominations/> for the precise details of the application process. A brief summary of the procedure is provided here.

Students who defend their dissertations (equivalent to the American doctoral dissertation) between October 1, 2022, and September 30, 2023, are eligible for the Prize this year. This is an international prize, with no restriction on the nationality of the candidate or the university where the doctorate is granted. Nominations should be made by the thesis advisor, and consist of: name of student, title and 1–2 page description of dissertation, date and location of the thesis defense, letter of recommendation from the advisor, an electronic copy of the thesis in pdf form, or the address of a website from which an electronic copy in pdf form can be downloaded, and an independent second letter of recommendation. Nominations and questions about the Prize should be sent to the Committee Chair, Jouko Väänänen; pdf files sent as attachments by email to jouko.vaananen@helsinki.fi are preferred. The form of such letters and other pertinent details can be found at the website above and need to be read prior to submitting a nomination.

Those wishing to contribute to the Sacks Prize Fund may send contributions to the ASL Business Office (see address at the top of this Newsletter). All such contributions are tax-deductible within the USA.

- **The 2023 ASL Election.** At the end of 2023 the ASL will elect two at-large members of the ASL Executive Committee and two at-large members of the ASL Council. All terms are for three years beginning January 1, 2024. The ballot will be included as a pdf attachment to the electronic November ASL Newsletter, and also included along with hard copies of that Newsletter. A Nomination Committee has been formed, consisting of M. Benedikt, P. Blanchette, V. Fischer, D. Hirschfeldt, J. Knight (chair), F. Liu, and M. Soskova.

Nominations for these positions, in addition to those to be made by the Committee, may be made by petition signed by 20 or more ASL members; such petitions should be received by the ASL Secretary-Treasurer (email asl@uconn.edu or ASL, Department of Mathematics, University of Connecticut, 341 Mansfield Road, U-1009, Storrs, CT 06269-1009, USA) no later than November 1, 2023. In a contested election, each candidate has the opportunity to make a 100-word statement to be distributed with the ballot.

- **Membership is now available to logicians in China.** The ASL is excited to announce that we can once again accept members from the People's Republic of China. Under PRC regulations we remain prohibited from mailing journals to members in China. However, we now can offer online access to the ASL journals through Cambridge University Press for members in China. Logicians employed in China who are interested in joining the ASL as new members are encouraged to apply to the ASL Committee on Membership for a free initial two-year outreach membership by emailing their mailing address and professional affiliation to asl-membership@

googlegroups.com. After two years, outreach members should contact Shannon Miller at asl@uconn.edu to pay for continued outreach membership at USD 18 per year. Details are available at <https://aslonline.org/membership/individual-membership/>. Questions about this arrangement can be directed to Shannon Miller, Russell Miller or Reed Solomon.

Logicians in China, not being on the current membership list, may not see this Newsletter. We therefore encourage all ASL members to spread the news of this welcome change, especially to colleagues based in China.

- **Attachment: Links to Articles.** For some months during the coronavirus pandemic, Cambridge University Press was unable to maintain its usual schedule of printing and mailing ASL journals to our members. The mailing of journals has resumed and is essentially caught up. All journals remain available online to members as always, and the e-mail edition of this Newsletter includes an attachment (also available shortly at <http://aslonline.org/wp-content/uploads/2023/09/Sep2023articlelinks.pdf>) that provides titles of many articles currently in press and active links for downloading them from our journal websites.
- **Open-Access Options for ASL Journals.** Authors of research articles in logic, who may wish to consider submitting those articles to the *Bulletin of Symbolic Logic*, the *Journal of Symbolic Logic*, or the *Review of Symbolic Logic*, should be aware that these journals now offer the option of open-access publication. Indeed, many universities now have contracts with Cambridge University Press, our publisher, that allow their researchers to publish open-access articles at no charge. These are often called *read-and-publish agreements* or *transformative agreements*.
- All three journals are now hybrid. They still accept article submissions exactly as before, and they will still publish accepted articles just as before if the author does not opt for open access. However, for authors with mandates to publish open-access articles (or who simply prefer to do so), this option is also available. Details appear at <https://www.cambridge.org/core/services/open-access-policies>. To ascertain whether your university is among those with an agreement as described above, use <https://www.cambridge.org/core/services/open-access-policies/read-and-publish-agreements>.
- **ASL Sponsorship of Meetings.** The ASL often sponsors research meetings and conferences in logic, all over the world. Sponsorship is granted to those meetings that uphold high standards of scholarship and rigor and whose purpose is in concert with the mission of the ASL. Student members of the ASL may apply to the ASL for travel support to attend sponsored meetings, as described below, and a report on each sponsored meeting subsequently appears in the *Bulletin of Symbolic Logic*. Meeting organizers who are ASL members and wish to request ASL sponsorship of their meetings should do so at least five months before the beginning of the meeting, following the instructions at <http://aslonline.org/sponsorship-of-meetings/>.
- **Call for Conference Proposals.** The ASL Committee on Logic in North America requests proposals for the 2025 ASL North American Annual meeting to be held some time during the first five months of 2025. The committee seeks a university somewhere in North America and a local committee to host the meeting and handle the local arrangements. For more information, interested parties should contact the Committee Chair, Tom Scanlon (email: scanlon@math.berkeley.edu), ideally no later than September 30, 2023.

Additionally, the Committee on Logic in Europe seeks proposals for hosting the 2025 Logic Colloquium. Meanwhile, the Committees on Logic in East Asia and Oceania seek proposals for hosting the 2027 Asian Logic Conference, ideally no later than January 1, 2024. Inquiries should be sent to the committee chairs: Andrew Arana for Europe (andrew.arana@univ-lorraine.fr) and Keita Yokoyama and Noam Greenberg for East Asia and Oceania respectively (y-keita@jaist.ac.jp and greenberg@sms.vuw.ac.nz).

STUDENT TRAVEL AWARDS

- **Student Travel Awards: ASL and ASL-Sponsored Meetings.** Student members of the ASL may apply for travel grants to ASL and ASL-sponsored meetings. These meetings are identified in the listings below. To be considered for a travel award, please (1) send a letter of application, and (2) ask your thesis supervisor to send a brief recommendation letter. The application letter should be brief (preferably one page) and should include:

(1) your name; (2) your home institution; (3) your thesis supervisor's name; (4) a one-paragraph description of your studies and work in logic, and a paragraph indicating why it is important to attend the meeting; (5) your estimate of the travel expenses you will incur; and (6) (voluntary) indication of your gender and minority status. Women and members of minority groups are strongly encouraged to apply. Application by email is encouraged; put "ASL travel application" in the subject line of your message.

For all of these meetings, applications should be submitted via email to asl@uconn.edu or to the ASL Business Office (ASL, Dept. of Mathematics, Univ. of Connecticut, 341 Mansfield Road, U-1009, Storrs, CT 06269-1009, USA). Instructions for the 2024 North American meeting appear on page 4, while the 2024 Logic Colloquium has not yet issued its call for applications. For all other ASL or ASL-sponsored meetings, applications (from student members of the ASL) and recommendations must be received at least three months prior to the start of the meeting. Decisions will be communicated at least two months prior to the meeting.

ASL-sponsored meetings are listed on p. 4 below, separately from "Other Meetings." Official ASL meetings include the Logic Colloquium, the North American Annual Meeting, the Asian Logic Conference, the Simposio Latino Americano de Lógica Matemática, the ASL Winter Meeting, and the ASL-APA annual joint meeting.

ASL MEETINGS

- **Asian Logic Conference** *October 9–13, 2023, Nankai University, Tianjin, China.* The Asian Logic Conference will be held at Nankai University on October 9–13, 2023. The invited speakers are W. Johnson, B. Khoussainov, C. Lambie-Hanson, A. Melnikov, R. Sklinos, S. Solecki, L. Wu, J. Ye, and Y. Yang. Special sessions (with organizers in parentheses) will be held in Computability Theory (N. Greenberg and G. Wu); Model Theory (H. Kikyo and S. Song); Philosophical Logic (Z. Hao and T. Xing); and Set Theory (D. Ikegami and S. Zhang). The Program Committee includes M. Banerjee, L. Ding, S. Gao, S. Goncharov, H. Kikyo, B. Kim, K.M. Ng, A. Nies, D. Raghavan, K. Sano, K. Yokoyama, and L. Yu. The Local Organizing Committee consists of L. Ding, S. Gao, C. Peng, M. Xiao, and Q. Zhao.

Visas are required for entry to China by nationals of many other countries. Registration is available until September 15, but anyone requiring an invitation letter (e.g., for visa purposes) should have registered by August 30 and requested such a letter. The deadline for applying for student travel support has passed. The conference website is <https://logic.nankai.edu.cn/alc2023/>.

- **2024 ASL Winter Meeting (at JMM)** *January 5–6, 2024, San Francisco, CA.* The 2024 ASL-JMM meeting will take place during the last two days of the 2024 Joint Mathematics Meeting, at the Moscone Center in San Francisco. The invited speakers are M. Harrison-Trainor (UIC), A. Hirvonen (Helsinki), F. Loeser (Sorbonne), T. Meadows (Irvine), D. Sinapova (Rutgers), S. Solecki (Cornell), and M. Vicaria (UCLA). The Program Committee consists of C. Freer, J. Kennedy, M. Malliaris (chair) and A. Marks. A preliminary program is attached to electronic copies of this Newsletter. The first two days of the JMM, January 3–4, will include the ASL Tutorial in Logic, presented by J. Steel and entitled "Large cardinals, determinacy, and inner models," as well as the ASL Special Session *Descriptive Methods in Dynamics, Combinatorics, and Large Scale Geometry*, organized by F. Shinko and J. Zomback, and the AMS Special Session *Computable Mathematics: A Special Session Dedicated to Martin D. Davis*, organized by W. Calvert, V. Harizanov, and A. Shlapentokh.

To participate, one must register for the entire Joint Mathematics Meeting, whose website is <https://www.jointmathematicsmeetings.org/jmm>. The deadline for submitting abstracts for ASL contributed talks was August 31, 2023. Student travel award applications (see p. 2 above) should be sent to asl@uconn.edu by the deadline of October 5, 2023.

- **2024 ASL Winter Meeting (with APA)** *January 15–18, 2024, New York, NY.* The 2024 ASL-APA meeting will be held in conjunction with the Eastern Division of the American Philosophical Association, at the Sheraton New York Times Square in New York City. S. Artemov chairs the Program Committee. The plenary speakers are M. Fitting (CUNY), J. Hamkins (Notre Dame), A. Hattaiingadi (Stockholm), B. Partee (Massachusetts, Amherst), S. Smets (Amsterdam), and T. Studer (Bern). A preliminary program is attached to electronic

copies of this Newsletter. Student travel award applications (see p. 2 above) should be sent to asl@uconn.edu by October 15, 2023. Please see <https://www.apaonline.org/events/EventDetails.aspx?id=1533429> by December 15, 2023 to register for this meeting.

- **2024 ASL North American Meeting** *May 14–17, 2024, Ames, IA.* The 2024 ASL North American Meeting will take place at Iowa State University. The plenary speakers include M. Eskew (Vienna), K. Kosaian (Iowa), P. Kolaitis (Santa Cruz), T. Moraschini (Barcelona), R. Nagloo (UIC) and H. Towsner (Penn). Tutorials will be given by A. Tserunyan (McGill) and R. Willard (Waterloo). There will be special sessions on Algebraic Logic (organized by G. Bezhanishvili and J. Gil-Ferez), Computability Theory (R. Alvir and S. Lempp), Logic in Computer Science (L. Moss and S. Weinstein), Model Theory (M.C. Laskowski and A. Padgett), Set Theory (C. Conley and N. Trang), and Universal Algebra (C. Aten and K. Kearnes).

The local organizing committee consists of S. Basu, T. McNicholl (chair), K. Slutsky, E. Weber and K. Yvonne-Rozier. The program committee consists of B. Csima (chair), N. Galatos, A. Kruckman, T. McNicholl and I. Neeman. The deadline for contributed talks and for applications for student travel awards is February 14, 2024. Both should be sent to the ASL office (asl@uconn.edu). Abstracts should follow the “Rules for Abstracts,” immediately below. The program of travel grants for this meeting is supported by the US National Science Foundation. Air travel paid for using these funds must be in accordance with the Fly America Act. For this meeting, students applying for travel support need not be ASL members.

- **2024 Logic Colloquium (European Summer Meeting)** *June 24–28, 2024, Gothenburg, Sweden.* The 2024 Logic Colloquium will be hosted by the University of Gothenburg. The members of the Programme Committee are B. Afshari (Gothenburg), G. Binyamini (Jerusalem, Israel), N. Dobrinen (Notre Dame, USA), U. Kohlenbach (chair; Darmstadt, Germany), F. Poggiolesi (Paris, France), K.M. Ng (Singapore), R. Solomon (Connecticut, USA), S. Toruńczyk (Warsaw, Poland), and M. Sadrazadeh (London, UK). The local organizing committee includes B. Afshari, R. Blanck, G. Curzi, F. Engström, M. Kasá, G. Leigh, and I. Di Liberti. Further details will be forthcoming.

ASL SPONSORED MEETINGS

- **Model Theory Workshop and Conference** *September 15–23, 2023, Wrocław, Poland.* This event comprises a workshop on September 15–18 and a subsequent conference on September 19–23. Both are part of a logic semester in Poland during the autumn of 2023. The Workshop will feature tutorials by T. Kaiser, A. Pillay, and N. Ramsey. It is organized by P. Błaskiewicz, J. Gogolok, D. Hoffmann, P. Kowalski, and K. Krupiński. The conference has twenty speakers scheduled. Please see the websites <https://www.math.uni.wroc.pl/~pkowa/work23.html> (for the workshop), <https://www.math.uni.wroc.pl/~pkowa/conf23.html> (for the subsequent conference), and <https://www.math.uni.wroc.pl/~pkowa/semester.html> (for the semester program).
- **Model Theory and Groups** *September 25–29, 2023, Münster, Germany.* This conference at the University of Münster is being held in honor of Katrin Tent’s 60th birthday. It will bring together researchers in model theory and group theory, with a particular view towards geometric group theory. The website <https://www.uni-muenster.de/MathematicsMuenster/events/2023/modeltheory-groups.shtml>, gives the extensive list of speakers. The organizers are Z. Ghadernezhad, M. Hils, F. Jahnke, and I. Müller.
- **PhDs in Logic XIV** *October 4–6, 2023, Granada, Spain.* The fourteenth edition of this annual conference for graduate students in logic will take place at the University of Granada. The invited speakers include M.J. Frápolli, N. Gierasimczuk, T. Ibarlucía, J. López Abad, J. Murzi, and A. Vidal. Registration is available at <https://phdsinlogicxiv.com/>.
- **Australasian Logic Colloquium** *November 6–7, 2023, Queensland, Australia.* This will be a hybrid meeting hosted by the University of Queensland at the St. Lucia Campus in Brisbane, Australia, organized by G. Badi and S. Rubin, encompassing mathematical, computational, and philosophical logic. The keynote speakers are E. Casanovas, R. Goré, and J. Makowsky. For more information see <https://sites.google.com/view/australasianlogiccolloquium2023/home?pli=1>.

- **Zagreb Logic Conference 2024** *January 12–15, 2024, Zagreb, Croatia.* This conference, on the occasion of World Logic Day on January 14, will be hosted by the Faculty of Science of the University of Zagreb. The invited speakers include A. Bauer, M.J. Gabbay, and J. McKinna, and the local organizers are T. Adlešić, V. Čačić, M. Doko, and T. Perkov. The website is <https://sites.google.com/view/zlc24/home>.

CALENDAR OF OTHER MEETINGS

- **Journées sur les Arithmétiques Faibles** *September 25–27, 2023, Samos, Greece.* The 42nd edition of the JAF will take place in Samos in September 2023. This meeting series focuses on the logic of weak arithmetical systems. The Programme Committee includes P. Cégielski, J. Cervelle, A. Cordón-Franco, C. Dimitracopoulos, A. Enayat, A. Esbelin, and N. Thapen. The deadline for abstract submissions is June 30, 2023. More information is available at <http://mathweb.aegean.gr/jaf42/>.
- **Fifth Workshop on Digitalization and Computable Models** *October 2–6, 2023, Astana, Kazakhstan.* This meeting will be held in Astana in a hybrid format, organized by Nazarbayev University, the Mathematical Center in Akademgorodok, and Kazan Federal University. The invited speakers and the Programme Committee are listed at <https://sites.google.com/view/wdcm2023>.
- **New England Recursion & Definability Seminar** *October 15, 2023, Wellesley, MA.* NERDS, a semiannual series of one-day seminars on computability and related topics, will be held at Wellesley College this fall. The organizers are K. Lange and T. Markkanen. Some travel support is available, thanks to an NSF grant. Participants who might need such support should contact Russell Miller at russell.miller@qc.cuny.edu. The series website is <https://nerds.math.uconn.edu/>.
- **South American Logic Meeting** *January 12–15, 2024, Cusco, Peru.* The First South American Logic Meeting (SALOME 1) will take place at the National University of Saint Anthony the Abbot in Cusco. It forms part of a project to develop logic in all its aspects in South America. Please see <https://sites.google.com/view/salome2024> for further information.

IN MEMORIAM

- **Thanases Pheidas (1958–2023)**

Prof. Thanases Pheidas, a pillar of the community around Hilbert’s Tenth Problem (H10), passed away unexpectedly on March 27, 2023.

Born on February 18, 1958 in Athens, Greece, Thanases grew up under the Greek military dictatorship, and his views were influenced by his family’s past in the resistance against the Nazi occupation. He graduated from the University of Patras in 1981 with a bachelor’s degree in mathematics and received his Ph.D. from Purdue University in 1985 under the supervision of Leonard Lipshitz. After 1991 he spent the rest of his career in his homeland, at the University of Crete, Heraklion, making frequent visits to the rest of Europe, the USA, and Chile, where his contributions made an important impact.

Thanases had a wide variety of mathematical interests. His Ph.D. thesis proved that a polynomial ring over a field has a decidable existential theory (over the language of addition, divisibility and a variable) just if the existential theory of the field is decidable. Weak Arithmetic held his attention throughout his career: with K. Zahidi, he worked on addition and the Frobenius map for polynomial rings, proving model completeness, while in joint work with X. Vidaux, he solved Büchi’s problem and some analogues over rings of functions. An unexpected application led to joint work with H. Pasten and Vidaux that achieved a uniform definition of p^s -powers across function fields of a fixed genus, as the characteristic $p > 0$ varies. These researchers also added results concerning Rubel’s language, with a predicate for the non-constant functions rather than constants for the variables.

Thanases’s best-known works involved undecidability of rings of functions over the ring language, sometimes with some natural additional symbols. His seminal 1991 paper in *Inventiones Mathematicae* proved that H10

is undecidable for rational function fields over finite fields of odd characteristic. He also established the undecidability of the first order theory of *every* rational function field of characteristic ≥ 5 , even when the base field is algebraically closed, which had been a major obstacle. At about the same time as A. Shlapentokh and C.R. Videla, he proved that H10 is undecidable for the ring of integers \mathcal{O}_K when the number field K has exactly two complex (non-real) conjugate embeddings. In the early 2000's a series of works by Poonen, Cornelissen–Pheidias–Zahidi, and Shlapentokh gave new life to H10, leading to a plethora of advances. Additionally, Thanases made substantial contributions to the analogue of H10 for the ring of complex entire functions.

Thanases was a full person with a deep sense of duty, natural and transparent and always generous in sharing his research ideas and wisdom. He connected easily with people, regardless of their backgrounds, occupations or age. He had eclectic tastes and a wide range of interests, including music, singing and playing the guitar, dancing (especially tango), chess, swimming (literally anywhere), sailing, and hiking. Inspired by the ancient Greek tradition, he loved doing mathematics while walking.

Thanases is survived by his wife Elisabeth, daughter Danae, two sisters, two granddaughters, and his former wife Renia. His knowledge, abilities, kindness and generosity will be missed by many.

OTHER ANNOUNCEMENTS (Also see [http://aslonline.org/announce/.](http://aslonline.org/announce/))

- **Ph.D. Abstracts in the *Bulletin of Symbolic Logic*.** Since 2018, the *Bulletin of Symbolic Logic* has published abstracts of recent Ph.D. theses in logic. As of January 1, 2023, Sandra Müller is the editor for this section of the *BSL*. Please visit <http://aslonline.org/journals/the-bulletin-of-symbolic-logic/logic-thesis-abstracts-in-the-bulletin-of-symbolic-logic/> for further information or to inform the editor of a newly completed dissertation.
- **Free Individual ASL Membership Program for Individuals in Developing Economies.** The ASL invites applications for an initial two-year free membership in the Association for new and lapsed members from countries classified as developing economies. The list, found at <https://aslonline.org/membership/world-bank-list/>, includes Brazil, Bulgaria, China (see p. 1), Colombia, India, South Africa, and many other countries classified as “upper middle income” or below on the World Bank’s annual list for four of the last five years. To apply, please send an email to the ASL Committee on Membership at asl-membership@googlegroups.com. Include your name, full mailing address, and your academic affiliation. Visit <http://aslonline.org/membership/individual-membership/> for information about the ASL and membership benefits. After the initial two-year period, new members under this program pay the reduced membership dues, US\$18 for 2023, as long as their country of residence is on the ASL’s list of developing economies.
- **Reduced Dues for Individuals and Institutions in Developing Economies.** The ASL offers reduced dues for individuals and institutions in developing economies. For 2023, the reduced dues are US\$18 for individuals and US\$130 for institutional basic membership, US\$180 for institutional full membership. These dues apply to individuals and institutions in countries whose economies are classified as “upper middle income” or below on the World Bank’s annual list for four of the last five years. For more information, visit <http://aslonline.org/membership/individual-membership/> or contact the ASL Business Office (address in the Newsletter masthead).
- **Emeritus and Retired ASL Individual Membership.** The ASL offers retired individual members two membership options. Emeritus membership includes all the privileges of regular individual membership and is available to retired individuals who have been members of the ASL for 15 years. The dues for Emeritus membership for 2023 are US\$54. The privileges attached to Retired membership include the ASL newsletter and the right to vote in ASL elections, but do not include subscriptions to the ASL journals. Retired membership is offered to retired individuals who have been members of the Association for 20 years and is free. For more information about both options, visit <http://aslonline.org/membership/>.

The next newsletter will be mailed in November 2023. Items to be included should reach the Secretary-Treasurers or asl@uconn.edu by November 6, 2023.

Submitted by Russell Miller & Reed Solomon, co-Secretary-Treasurers.