ASL NEWSLETTER   April 2020

- **Policy on articles in memoriam.** This Newsletter's policy on including articles in memory of specific individuals has been revised. The new policy is that, in most cases, the Newsletter will accept one short article in memory of a recently deceased logician, submitted by an ASL member. These articles should be limited to 400 words, and will appear (unsigned) at the end of the Newsletter, after that edition's news and announcements, rather than at the beginning. The Newsletter editors may still solicit such articles for certain logicians, or try to combine submissions about a single individual if necessary, and they reserve the right to make decisions in specific cases. However, in general such submissions will be accepted.

    Two such items appear at the end of this Newsletter.

- **2020 Sacks Prize.** The ASL invites nominations for the 2020 Sacks Prize for the most outstanding doctoral dissertation in mathematical logic. Nominations must be received by September 30, 2020. 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/asl-information/prizes-and-awards/`. Anyone who wishes to make a nomination for the 2020 Sacks Prize should consult the webpage `http://aslonline.org/asl-information/prizes-and-awards/sacks-prize-recipients/sacks-prize-nominations-and-other-information/` for the precise details.

    Students who defend their dissertations (equivalent to the American doctoral dissertation) between October 1, 2019, and September 30, 2020, 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 adviser, 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 adviser, 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, Justin Moore; pdf files sent as attachments by email to `justin@math.cornell.edu` 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.

- **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 wish to request ASL sponsorship of their meetings should do so at least six months before the beginning of the meeting, following the instructions at `http://aslonline.org/sponsorship-of-meetings/`.

- **Mailing of Journals.** During the current pandemic, Cambridge University Press is unable to maintain its usual schedule of printing and mailing ASL journals to our members. All journals remain available online to

members as always, but the arrival of printed copies may be significantly delayed. CUP has apologized to the ASL Publisher for the delays, and requests that we all recognize the significant challenges it faces in this extraordinary situation.

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. 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; (6) (for citizens or residents of the USA) citizenship or visa status; and (7) (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 ASL or ASL-sponsored meetings except the Logic Colloquium and the North American Annual Meeting, applications (from student members of the ASL) and recommendations must be received at least three months prior to the start of the meeting, via email to `asl@uconn.edu` or at the ASL Business Office (address at the top of this Newsletter). Decisions will be communicated at least two months prior to the meeting.

INFORMATION ON MEETINGS

- **Status of scheduled meetings.** Under the extraordinary circumstances of the coronavirus and the measures in place to combat it, many logic meetings scheduled for the spring and summer of 2020 have already been canceled, and it is likely that more will be canceled. Information appearing here is current as of the publication of this Newsletter, but ASL members should use the URL given in each item to confirm the ongoing status of any meeting they may consider attending. For completeness, the listings here include short items for canceled meetings.

  We urge all logicians to use caution and common sense in planning their schedules, and to avoid unnecessary travel during these unusual times.

- **Online logic seminars.** To replace canceled meetings and seminars, certain regular online logic seminars have sprung up. A list of existing seminar series with talks available online appears at `http://miguelmath.com/webminars.html`. Additionally, the site `http://lagrange.math.siu.edu/calvert/OnlineLogicSeminar.html` has been created to host a new, purely online logic seminar. The site `ctaseminar.computability.org` hosts an online seminar entitled *Computability Theory and Applications*, and the Logic Supergroup at `logic.uconn.edu/supergroup/` runs an online seminar on logic across linguistics, mathematics, and philosophy. Finally, since the ASL North American Annual Meeting of March 2020 was canceled, the Program Committee for that meeting created the webpage `http://aslonline.org/virtual-2020-annual-meeting/` with links to audio presentations (with slides) of several talks that would have been presented there.

ASL MEETINGS

- **2020 ASL North American Annual Meeting** *March 25–28, 2020, Irvine, California.* This meeting was canceled, but several of the talks scheduled for it are available online at `http://aslonline.org/virtual-2020-annual-meeting/`, as described above.

- **2020 ASL Winter Meeting (with APA)** *April 8–12, 2020, San Francisco, California.* This conference has been canceled. For more information, see `https://www.apaonline.org/events/event_list.asp?cid=6956`.

- **2020 ASL European Summer Meeting (Logic Colloquium)** *July 13–18, 2020, Poznań, Poland.* This conference has been postponed to July 19-24, 2021. See `https://lc2020.pl/` for further information.

- **2020-2021 ASL Winter Meeting (with Joint Mathematics Meetings)** *January 8–9, 2021, Washington, DC, USA.* This meeting will be held in conjunction with the Joint Mathematics Meetings taking place January 6-9, 2021. The members of the Program Committee are A. Montalban (chair), A. Tserunyan and C. Laskowski. Information about the JMM meeting can be found here: `http://jointmathematicsmeetings.org/jmm`.

ASL SPONSORED MEETINGS

- **PhDs in Logic XII** *April 27–29, 2020, Berlin, Germany.* This conference has been postponed. The organizers hope to reschedule it later in 2020. Conference website: `https://www.mi.fu-berlin.de/phdsinlogic2020/`.

- **Antalya Algebra Days XXII** *May 23–27, 2020, Sirince, Izmir, Turkey.* This conference has been postponed until 2021. More information: `https://nesinkoyleri.org/en/events/2020-antalya-algebra-days-xxii/`.

- **Model Theory and Applications** *June 1–5, 2020, Cetraro, Italy.* This conference has been canceled. Website: `http://www.matfis.unicampania.it/home-model-theory`.

- **Model Theory: from Geometric Stability to Tame Geometry** *June 8–12, 2020, Luminy, France.* This conference has been canceled. The website is `https://conferences.cirm-math.fr/2173.html`.

- **Model Theory Conference in celebration of Ludomir Newelski's 60th birthday** *June 22–26, 2020, Szklarska Poreba, Poland.* Confirmed speakers include: M. Bays, A. Berenstein, E. Bouscaren, A. Chernikov, J. Gismatullin, E. Hrushovski, A. Ivanov, F. Jahnke, T. Kaiser, D. Macpherson, R. Moosa, L. Newelski, N. Ramsey, T. Rzepecki, P. Simon, P. Tanović, K. Tent, C. Terry, T. Tsankov, and F. Wagner. For more information, visit `http://www.math.uni.wroc.pl/~pkowa/ln20.html`.

- **Leeds Computability Days** *June 24–26, 2020, University of Leeds.* This will be a satellite meeting of the CCR meeting in Cambridge the following week (see below). It is expected that this meeting will be held if and only if the CCR meeting is held. LCD will feature talks by R. Alvir, A. Bard, G. Barmpalias, V. Brattka, P. Cholak, D. Dzhafarov, M. Fernández, M. Fiori Carones, J. Knight, S. Lempp, A. Melnikov, K. Miyabe, A. Montalbán, L. Patey, M. Soskova, and W. Wang. The organizers are R. Downey, E. Mayordomo, and P. Shafer. For further information please visit `www.computability.org/LCD2020/`.

- **Computability, Complexity, and Randomness 2020** *June 29–July 3, 2020, Cambridge, UK.* This year's edition of CCR will take place as a workshop at the Isaac Newton Institute at Cambridge University, organized by R. Downey, E. Mayordomo, and P. Shafer. It follows up on the 2012 programme at the INI entitled *Symtax and Semantics: A Legacy of Alan Turing.* The Newton Institute is closed as of March 20, 2020, and has not announced when it will reopen. More information is available at `www.newton.ac.uk/event/sasw09`.

- **Computability in Europe 2020** *June 29–July 3, 2020, Salerno, Italy.* This conference will not take place as scheduled; it is being reorganized. Further information: `cie2020.wordpress.com`.

- **Australasian Association of Logic Annual Conference** *July 2–3, 2020, University of Sydney, Australia.* The Australasian Association of Logic has held Annual Conferences since 1965. This conference embraces all topics in logic (mathematical, philosophical, computational, etc.). For further information visit `http://www-personal.usyd.edu.au/~njjsmith/aal2020/`.

- **Practical and Structural Model Theory on the Occasion of the 60th +/- Birthdays of Ya'acov Peterzil and Sergei Starchenko** *July 27–31, 2020, University of Passau, Germany.* The scope of this conference will include model theory of o-minimal structures, interactions and applications of o-minimality, and model theoretic generalizations. The Organizing Committee consists of P. Eleftheriou, A. Hasson, and T. Kaiser. Confirmed speakers and more information appear at `https://www.fim.uni-passau.de/en/professorship-mathematics/conference-practical-and-structural-model-theory/`.

- **Hilbert-Bernays Summer School** *July 27–31, 2020, Göttingen, Germany.* This summer school offers a unique opportunity for undergraduate and graduate students to attend compelling lectures on logic and computation. Students from all over the world may sign up for this Summer School course, anticipating a high professional

outcome in a dedicated international environment, along with extra-curricular activities. Confirmed invited speakers include L. Horsten, H. Mildenberger, I. Oitavem, and R. Kahle. Please follow the links at `http://aslonline.org/meet/` for the website.

- **27th Workshop on Logic, Language, Information, and Computation 2020 (WoLLIC 2020)** *August 4–7, 2020, Universidad de Ingenieria y Tecnologia, Lima, Peru.* This conference has been postponed to 2021. For further information, please visit `http://wollic.org/wollic2020/`.

- **European Model Theory Conference for Young Researchers** *September 9–11, 2020, Freiburg, Germany.* The purpose of this meeting is to present a general overview of recent progress made by young researchers in model theory and its applications, and to serve as a platform for those researchers to disseminate their contributions. Confirmed speakers include P. Cubides Kovacsics, N. Daans, N. Hempel, R. Menuni, S. Moconja, and T. Zou. There will also be a mini-course by I. Kaplan and a special talk by H. Mihaljevic. The conference website is `https://home.mathematik.uni-freiburg.de/palacin/EMTY/`.

CALENDAR OF OTHER MEETINGS

- **Graduate Student Conference in Logic XXI** *April 18–19, 2020, University of Notre Dame, USA.* This conference has been canceled. For more information, visit `http://sites.nd.edu/gscl-2020/`.

- **MAMLS Spring Fling** *April 22–24, 2020, City University of New York, USA.* This conference has been canceled. See `https://nylogic.github.io/MAMLSSpringFling/home.html` for details.

- **Sao Paulo School of Advanced Science on Contemporary Logic, Rationality, and Information** *July 13–24, 2020, University of Campinas, Brazil.* This School has been postponed. See `https://splogic.org/` for updates.

- **Second Workshop on Digitalization and Computable Models** *July 20–24, 2020, Novosibirsk, Russia.* WDCM-20 is organized by the Mathematical Center in Akademgorodok, with support from the Ministry of Education and Science of the Russian Federation. It will take place at the Sobolev Institute, near Novosibirsk, and will serve as a venue for researchers in computability and computer science to meet and discuss their work. The Programme Committee consists of N. Bazhenov (secretary), S. Goncharov, V. Harizanov, M. Harrison-Trainor, I. Kalimullin, A. Melnikov, A. Morozov (chair), K.M. Ng, V. Selivanov, and Y. Yang. For further information, visit `http://bazhenov.droppages.com/wdcm2020`

- **Northeast Regional Model Theory Days** *August 7–9, 2020, College Park, MD, USA.* This model theory meeting will take place on the campus of the University of Maryland. The local organizers are A. Dolich, V. Guingona, D. Kueker, and M. Parnes. Student funding from the NSF will be available from the organizers and through the Mid-Atlantic Mathematical Logic Seminar. The meeting website will be at `https://www-math.umd.edu/research/conferences.html`.

IN MEMORIAM

- **In memoriam: Ettore Casari (1933-2018).**

Ettore Casari, age 86, emeritus professor at the Scuola Normale Superiore in Pisa, passed away in Florence on May 24, 2019. Casari's work and personality played a fundamental role in the renaissance of logical investigations in Italy after Peano, Padoa, and Burali-Forti.

Casari was born on August 13, 1933 in Smarano, in the alpine valley *Val di Non*. After the Gymnasium in Trient, he studied classics at the University of Pavia, but became progressively involved in logical matters. A turning point in Casari's life was the decision to study in 1953-54 at the University of Münster, which hosted a (still existing) flourishing logic school. Back to Pavia, Casari attended the lectures by Ludovico Geymonat, philosopher and mathematician, himself a student of Peano. He submitted his Laurea dissertation in 1955, then left Italy again for Münster, where he switched from classics and philosophy to logic and mathematics. There he had among his teachers H. Hermes, G. Hasenjaeger and W. Ackermann.

After leaving Münster in 1961, Casari lectured at the universities of Milan and Pavia. In 1966 he was advanced to full professor; after a short period at the University of Cagliari, he moved to the University of Florence (1967-1998). From 1998 till 2006 he was Professor of Logic at the Scuola Normale Superiore in Pisa. In the sixties and later on, Casari became the main point of reference of a new team of young researchers in logic, jointly involving mathematicians and philosophers.

Casari's scientific work reflects different aspects of logic. At an early stage – especially in the late fifties and sixties – he spent his efforts for the dissemination of logical and foundational knowledge in Italy by writing some logic textbooks and a monograph on the philosophy of mathematics. In 2006 he published an admirable exposition *The Mathematics of Truth*, dedicated to "mathematical tools for logical semantics," covering a theory of structures, from groupoids to topological spaces up to category theory. On the mathematical side, he contributed in the eighties to the so-called *intermediate logics*. In a series of papers ranging from 1984 to 1997 he introduced *comparative logics*, which can be subsumed under the general headings of many-valued logic and fuzzy logic. Casari had a permanent interest in the history of logic: one highlight is his monograph on *Bolzano's Logical System*, published as volume XX of the Oxford Logic Guides.

Casari is survived by his wife Christa and his sons Giorgio, Mario, and Paolo. He will be missed as an example of outstanding scholarship and academic integrity.

- **In memoriam: Erik Palmgren (1963-2019).**

Erik Palmgren, professor of mathematical logic at Stockholm University, passed away unexpectedly on 12 November 2019.

Erik's research lay in the intertwined traditions of constructive mathematics, categorical logic, and type theory. We survey three noteworthy contributions: the domain interpretation of intuitionistic type theory, its extension into the higher infinite, and the constructive development of non-standard analysis. Each combines elegant structures, high technical content, and deep motivations.

Martin-Löf introduced intuitionistic type theory in the 1970s as a foundation for constructive mathematics, later including infinite streams of data in the form of Brouwer's choice sequences. In his dissertation, Erik provided a model using Scott's theory of "domains," reconciling choice sequences with the understanding of type theory as a programming language.

A central ingredient of type theory is universes – type families closed under various constructions, analogous to Grothendieck universes or inaccessible cardinals. Inspired by the universes in his domain-theoretic interpretation, Erik extended these to "super universes" closed under a "next universe" operation, and later to stronger universe hierarchies. This began the extension of type theory into the higher infinite and the discovery of natural constructive formulations of large cardinal principles: hyper-inaccessible, Mahlo, and beyond.

Finally, Erik made decisive contributions to constructive non-standard analysis. Robinson's original non-standard analysis (1965) was based on non-principal ultrafilters, a highly non-effective notion. Building on work of Moerdijk, Erik gave a constructive model of non-standard analysis using a varying filter, formalized as a topos of sheaves, and conducted a deep study of this model, demonstrating the constructivity of non-standard analysis and unifying it with other threads in modern categorical logic.

Erik was born in 1963, near Luleå in northern Sweden. He studied in Uppsala, initially in computer science, until a desire for greater rigour led him to mathematical logic and a PhD under Viggo Stoltenberg-Hansen. Erik worked at Uppsala until he was recruited to Stockholm in 2011, where he remained until his death.

Personally, Erik was quiet, modest, and more of a listener than a talker; but this reserved demeanour did not hide his warmth of feeling and care for others. He supervised eight PhDs and mentored many younger colleagues. His death came quite unexpectedly, after a short spell of seemingly minor ill-health. He had no immediate family, but is mourned by his cousins, friends, and colleagues, in Sweden and around the world.

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

- **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 `http://aslonline.org/membership/`

`world-bank-list-as-of-october-2019-for-2020-memberships/` includes Brazil, Bulgaria, 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. For information about the ASL and membership benefits, visit `http://aslonline.org/membership/individual-membership/`. After the initial two-year period new members under this program will pay the reduced membership dues, US$18 for 2020, (see below) 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 2020, 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: ASL, Dept. of Mathematics, Univ. of Connecticut, 341 Mansfield Road, U-1009, Storrs, CT 06269-1009, USA; tel: +1-860-486-3989; fax: +1-860-486-4238; email: asl@uconn.edu.

The next newsletter will be mailed in September 2020. Items to be included should reach the Secretary-Treasurers before August 31, 2020.

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