ASL NEWSLETTER   September 2019

- **In memoriam: Anne Troelstra.** Anne Sjerp Troelstra died suddenly at the age of 79 on March 7, 2019 of a brain haemorrhage, following a short illness. In 1957 he started as a mathematics student at the University of Amsterdam, the university where he spent most of his working life, and where he was still seen regularly right up to his last illness. Soon Arend Heyting became an important influence, during his master studies, which he finished in 1964, and his PhD in 1966 on intuitionistic topology. Already in 1964 Anne had been appointed assistant professor, as was the custom of the times with excellent students, and in 1966 he became associate professor. The year before he had married his co-student Olga Bakker.

  Of great importance for his further career were the two years immediately after. The academic year 1966-67 he spent at Stanford University with a postdoctoral fellowship and there met G. Kreisel, another important influence on his research. In the summer of 1968 he gave a fundamental course of lectures at an influential conference on intuitionism and proof theory at SUNY Buffalo.

  In 1970 the chair of mathematics at the University of Amsterdam which had been held by L.E.J. Brouwer and A. Heyting was offered to Anne. This insured the continuation of the tradition of these great Dutch mathematician-philosophers. The position, which he held until his retirement in 2000, brought with it the responsibility to inspire interest and progress in intuitionistic logic and mathematics, a challenge Anne took very seriously. In addition to lecturing, mentoring graduate students and publishing original results, he helped to organize conferences and authored or coauthored six influential books. Of these, "Metamathematical Investigations of Intuitionistic Arithmetic and Analysis" (Springer Lecture Notes 344, 1973) and the two-volume "Constructivism in Mathematics" (with D. van Dalen, 1988) are still essential references, while "Basic Proof Theory" (with H. Schwichtenberg, second edition 2000) is a widely used text.

  Troelstra's exceptional ability to examine the writings of Brouwer, Heyting, Kreisel, Kleene, Gödel and others with an independent and objective eye drove much of his mathematical research. He sharpened Kreisel's axioms for "lawless sequences," and developed his own formal system CS with distinct sorts of sequence variables ranging over lawlike and choice sequences. With Kreisel he wrote "Formal systems for some branches of intuitionistic analysis" (Annals of Mathematical Logic, 1970), using a translation to show (the "elimination of choice sequences") that formulas without free choice sequence variables are equivalent over CS to lawlike formulas, and that CS is an expansion of its lawlike subsystem. In "An Addendum" (1971) Troelstra proved that CS is a conservative extension of the two-sorted formal system of Kleene and Vesley's "Foundations of Intuitionistic Mathematics" (1965). He provided new models for intuitionistic analysis in "Projections of lawless sequences" I (with van Dalen, 1970) and II (with van der Hoeven, 1978), and in "Choice Sequences: A Chapter of Intuitionistic Mathematics" (1977). Here and in much other work on choice sequences he painfully scrutinized concepts such as lawlike and lawless using "informal rigor" (as originally proposed by Kreisel) to reach conclusions about them.

  Troelstra remarkably succeeded in axiomatizing Kleene's realizability interpretations using two new principles. First came his theorem that over intuitionistic arithmetic Extended Church's Thesis ECT_0 identifies truth with Kleene's original number realizability, exhibiting the role realizability plays as a metamathematical principle. This result acted as a role model for countless later axiomatizations of kinds of realizability and other interpretations. A prime example is Troelstra's own theorem that generalized continuity GC similarly characterizes function realizability over classically correct subsystems of intuitionistic analysis. These results appeared in SLN 344 together with clear expositions of nearly all significant work on intuitionistic formal systems known in Europe or America before 1973, and with supplementary chapters by Smorynski, Zucker and Howard. Especially

impressive is the way Anne was able in this book to bring widely distinct methods and areas into view as one unified field of research. Among his many contributions were the observation that Kleene's formal treatment of recursive functionals requires only recursive comprehension rather than the "unique choice" principle Kleene assumed, and that Heyting's arithmetic of species can consistently be assumed to satisfy a uniformity principle, a principle which is very characteristically intuitionistic but strikingly inconsistent with standard mathematics. The monumental "Constructivism in Mathematics" brought the subject up to date in 1988.

In addition to his important original contributions, Troelstra wrote the introductory notes to the fundamental articles on the negative translation and the Dialectica interpretation in Volumes I (1986) and II (1990) of Gödel's collected works. His textbook "Lectures on Linear Logic" (1992) helped to clarify a subject which was still being developed, and he wrote the chapter on realizability for the Handbook of Proof Theory (1998).

During his tenure at the University of Amsterdam Anne was sole or principal supervisor for thirteen doctoral students and co-advisor for four others. His students have contributed significantly to the development of constructive mathematics and related topics, including combinatory algebra, category theory, Martin-Löf type theory, bounded arithmetic, linear logic and provability logic.

In 1999, on the occasion of his 60th birthday, a commemorative symposium was held in Noordwijkerhout, the Netherlands. Contributors to the associated volume of APAL included Justus Diller, Ulrich Kohlenbach, Albert Visser and Helmut Schwichtenberg, who have all expressed great appreciation for Anne's work and great sadness at his loss. His unassuming manner and his wise, kind, fair and constructive interactions with students and colleagues, in the Netherlands and around the world, cannot be summarized in a few paragraphs. Even after retirement, when he left logic to write three books on natural history narratives and became an authority on that subject as well, he continued to respond thoughtfully to questions about constructive topics. Life will be different for many, now that he is no longer there.

- We also report, with sorrow, the passing of Patrick Dehornoy, on September 4, 2019, and of Gerald Sacks, on October 4, 2019. Memorial pieces are planned for future Newsletters.

- **The 2019 ASL Election.** Enclosed with this newsletter is the ballot for the 2019 election for the Secretary and Treasurer of the ASL, two members of the Executive Committee, and two members of the Council. For those receiving this newsletter via email, the ballot is included as a separate pdf attachment. All terms are for three years beginning January 1, 2020. The 2019 Nominating Committee has nominated Russell Miller (Queens College, CUNY) and Reed Solomon (University of Connecticut) for Co-Secretary-Treasurers, Anuj Dawar (Cambridge) and Paola D'Aquino (Campania) for the Executive Committee positions; and Ralf Schindler (Münster) and Keita Yokoyama (JAIST) for the Council positions. The Nominating Committee consisted of Michael Benedikt, Elizabeth Bouscaren, Rod Downey, Su Gao, Ulrich Kohlenbach (chair), Penelope Maddy and John Steel.

- **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 `aslonline.org/meetings/sponsorship-of-meetings/`.

<div align="center">STUDENT TRAVEL AWARDS</div>

- **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 ASL student member travel grants to the 2020 North American Annual Meeting, applications should be sent directly to the Program Chair, Denis Hirschfeldt, by December 1, 2019, at `drh@math.uchicago.edu`. For the 2020 European Summer Meeting, details will be announced soon. For all other ASL or ASL-sponsored meetings applications 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.

ASL MEETINGS

- **18th Simposio Latino Americano de Lógica Matemática (SLALM 2019)** *December 16-20, 2019, Universidad de Concepción, Chile.* The SLALM was conceived in the late 1960s by Abraham Robinson, who at the time was President of the ASL. It brings together the community of researchers in logic in Latin America and is nourished by the crucial participation of researchers from around the world. The 18th SLALM (Latin American Symposium on Mathematical Logic 2019) will take place at the Universidad de Concepción in Chile, with plenary speakers including P. Barceló, M. Busaniche, Z. Chatzidakis, M. Hrusak, E. Pimentel, C. Rojas, and H. Towsner. Special sessions will be held in Model Theory (organized by X. Caicedo and J. Utreras); Set Theory (J. López-Abad and C. Martínez); Computability and Computer Science (P. Barceló and A. Montalbán); and Philosophy and Non-classical Logics (A. Massolo and R. Núñez).

  The Program Committee consists of A. Berenstein (chair), M. Busaniche, D. Figueira, Ll. Godo, C. Gutierrez, J. Lopez-Abad, A. Macintyre, C. Martinez-Ranero, A. Montalbán, S. Montenegro, N. Olivetti, T. Slaman, and B. Ziliani. Members of the Organizing Committee are S. Briceño, A. Gajardo, C. A. Martinez-Ranero, M. A. Rodriguez, J. Utreras, and X. Vidaux. The conference website is `http://slalmxviii.udec.cl`.

- **2019-2020 ASL Winter Meeting (with Joint Mathematics Meetings)** *January 17-18, 2020, Denver, Colorado.* This meeting will be held in conjunction with the Joint Mathematics Meetings taking place January 15-18, 2020, with invited talks by C. Freer, V. Gitman, W. Holliday, A. Kechris, B. Rossman, M. Thomas, and L. Westrick. The members of the Program Committee are N. Dobrinen (chair), D. Haskell, and D. Roy. The Joint Mathematics Meetings program includes two joint AMS-ASL special sessions on January 15-16: *Choiceless Set Theory and Related Areas*, organized by P. Larson and J. Zapletal; and *Logic Facing Outward*, organized by K. Lange and R. Miller. K. Lange will also give an AMS-MAA Invited Address on January 15. A program for the ASL Winter Meeting is included as a pdf attachment with e-mailed copies of this newsletter, and will be available shortly at `aslonline.org/meetings/`.

- **2020 ASL North American Annual Meeting.** *March 25–28, 2020, Irvine, California.* Confirmed invited speakers include J. Avigad, O. Ben-Neria, R. Dechter, H.J. Keisler, J. Kennedy, B. Monin, S. Razborov, and J. Väänänen. The members of the Program Committee are L. Cohen, J. Cummings, D. Hirschfeldt (chair), P. Kolaitis, M. Malliaris, and T. Meadows. The Local Organizing Committee consists of M. Foreman, I. Goldbring (chair), P. Maddy, T. Meadows, K. Wehmeier and M. Zeman. Abstracts of contributed talks submitted by ASL members will be published in *The Bulletin of Symbolic Logic* if they satisfy the Rules for Abstracts. Abstracts must be received by the deadline of December 1, 2019, at the ASL Business Office, preferably by email: `asl@uconn.edu`. More information can be found here: `https://sites.uci.edu/asl2020/`.

- **2020 ASL Winter Meeting (with APA)** *April 8-12, 2020, San Francisco, California.* This meeting will be held in conjunction with the Annual Meeting of the Pacific Division of the American Philosophical Association. The ASL invited speakers are A. Bacon, E. Cresto, R. French, M. Fusco, H. Lin, and S. Shieh. The members of the Program Committee are G. Russell, G. Sagi (chair), and S. Walsh. More information is available at `https://www.apaonline.org/events/event_list.asp?cid=6956`.

- **2020 ASL European Summer Meeting (Logic Colloquium).** *July 13-17, 2020, Poznań, Poland.* This meeting will be hosted by Adam Mickiewicz University in Poznań. The members of the Program Committee are W. Buszkowski, A. Dawar, G. Primiero, M. Soskova, H. Towsner, M. Viale, and B. Zil'ber (chair). The

Local Organizing Committee consists of W. Buszkowski, J. Golińska-Pilarek, L. Kołodziejczyk, P. Łupkowski, R. Murawski (co-chair), M. Nasieniewski, J. Pogonowski, T. Skura, K. Świrydowicz, M. Urbański (co-chair), and A. Wiśniewski.

- **Rules for Abstracts.** The rules for abstracts of contributed talks at ASL meetings (including those submitted "by title") may be found at `http://aslonline.org/meetings/rules-for-abstracts/`. Please note that abstracts *must* follow the rules as set forth there; those which do not conform to the requirements will be returned immediately to the authors who submitted them. Revised abstracts that follow the rules will be considered if they are received by the announced deadline.

ASL SPONSORED MEETINGS

- **Circularity in Syntax and Semantics (CiSS 2019)** *November 20-23, 2019, University of Gothenburg, Sweden.* The conference is dedicated to aspects of circularity and ill-foundedness in formal methods. The aim is to gather together researchers who study or/and utilise these phenomena from different perspectives such as provability, formal reasoning, construction, computation and complexity. Invited speakers include J. van Benthem (Amsterdam), M. Dam (KTH), A. Doumane (Lyon & Warsaw), H. Hvid Hansen (TU Delf), P. Melliès (Paris), and S. Negri (Helsinki), and there will also be sessions for contributed talks. Programme Committee: B. Afshari (co-chair), D. Baelde, A. Das, V. Goranko, G. Leigh (co-chair), A. Saurin, and Y. Venema. For more information, visit: `http://www.cse.chalmers.se/∼bahafs/ciss2019/`. Contact for inquiries: `bahareh.afshari@gu.se`. (ASL Sponsored Meeting.)

- **Carlos di Prisco Birthday Meeting** *November 27-29, 2019, Universidad de Los Andes, Bogotá, Colombia.* Carlos di Prisco, who has been a supporter of the ASL's activities for many years, turned 70 years old in October 2019. This conference is held in honor of his life and work. It is intended for a wide audience, especially for students, but will also include the participation of mathematicians who have worked with Carlos and are close to him. Invited speakers include J. Bagaria, C. Brech, J. López-Abad, N. Dobrinen, A. Arias, and X. Caicedo. Members of the Organizing Committee: A. Villaveces, C. Uzcátegui and J. Mijares. Read more here: `https://matematicas.uniandes.edu.co/eventos/2019/dipriscofest/`. (ASL Sponsored Meeting.)

- **Logical Foundations of Computer Science (LFCS 2020)** *January 4-7, 2020, Deerfield Beach, Florida.* The LFCS series provides an outlet for the fast-growing body of work in the logical foundations of computer science, e.g., areas of fundamental theoretical logic related to computer science. The LFCS series began with Logic at Botik, Pereslavl-Zalessky, 1989 and was co-organized by Albert R. Meyer (MIT) and Michael Taitslin (Tver), after which organization passed to Anil Nerode. Members of the Steering Committee: A. Nerode (General Chair), S. Cook, D. van Dalen, Y. Matiyasevich, S. Buss, G. Sacks, A. Scedrov, and D. Scott. For more information regarding LFCS 2020, please visit `https://lfcs.ws.gc.cuny.edu/lfcs-2020/`. (ASL Sponsored Meeting.)

- **PhDs in Logic XII** *April 27-29, 2020, Berlin, Germany.* PhDs in Logic is an annual graduate conference organized by graduate students. The 2020 edition will be organized by local students from Berlin as well as students from Bochum and Munich. This interdisciplinary conference welcomes contributions to various topics in mathematical logic, philosophical logic, and logic in computer science. It usually involves tutorials (approximately 60-90 minutes) by established researchers as well as short presentations by PhD students, master students and first-year postdocs on their research. Confirmed invited speakers include: Peter Verdée, Christoph Benzmüller, Alexander Steen, and Marianna Antonutti. (ASL Sponsored Meeting.)

- **Antalya Algebra Days XXII** *Sirince, Izmir, Turkey. May 23-27, 2020,* Antalya Algebra Days is an annual meeting taking place in Turkey, which serves as an international platform for exchanging ideas and establishing contacts. Each meeting has a focus: for the 22nd meeting in 2020 the focus will be model theory. Topics will include model theory and also number theory, algebraic geometry, ring and module theory. Confirmed speakers include: T. Altinel, J. Bell, Z. Chatzidakis, G. Conant, P. Cubides Kovacsics, G. Dill, M. Kamensky (tentative), K. Krupiński, A. Kwiatkowska, S. Moconja, D. Palacin, O. León Sánchez (tentative), and T. Xiang Zou. For more information, visit `https://nesinkoyleri.org/en/events/2020-antalya-algebra-days-xxii/`. (ASL Sponsored Meeting.)

- **Model Theory Conference in celebration of Ludomir Newelski's 60th birthday** *Szklarska Poreba, Poland. June 22-26, 2020,* Confirmed speakers include: M. Bays, A. Berenstein, E. Bouscaren, J. Gismatullin, L. Haykazyan, E. Hrushovski, A. Ivanov, F. Jahnke, T. Kaiser, D. Macpherson, R. Moosa, L. Newelski, A. Pillay (tentatively), 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`. (ASL Sponsored Meeting.)

- **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.* A satellite meeting in Leeds is also planned, likely during the week of June 22. More information is available at `www.newton.ac.uk/event/sasw09`. (ASL Sponsored Meeting.)

- **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/`. (ASL Sponsored Meeting.)

- **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. Read about the list of confirmed speakers and more about the meeting here: `http://www.fim.uni-passau.de/index.php?id=24850&L=1`. (ASL Sponsored Meeting.)

- **27th Workshop on Logic, Language, Information, and Computation 2020 (WoLLIC 2020)** *August 4-7, 2020, Universidad de Ingenieria y Tecnologia, Lima, Peru.* WoLLIC is an annual international forum on inter-disciplinary research involving formal logic, computing and programming theory, and natural language and reasoning. Contributions are invited on all pertinent subjects, with particular interest in cross-disciplinary topics. Typical but not exclusive areas of interest are: foundations of computing and programming; novel computation models and paradigms; broad notions of proof and belief; proof mining, type theory, effective learnability; formal methods in software and hardware development; logical approach to natural language and reasoning; logics of programs, actions and resources; foundational aspects of information organization, search, flow, sharing, and protection; foundations of mathematics; philosophy of mathematics; philosophical logic; philosophy of language. Papers must be submitted electronically at the WoLLIC 2020 EasyChair website; see `http://wollic.org/wollic2020/instructions.html`. The initial deadline is March 29, 2020. The co-chairs of the Program Committee are A. Silva and R. Wasserman. The Organizing Committee consists of E. Quadro-Vargas (local chair), A. G. de Oliveira, and R. de Queiroz (co-chair). For further information, please visit `http://wollic.org/wollic2020/`. (ASL Sponsored Meeting.)

CALENDAR OF OTHER MEETINGS

- **Symposium in Honor of Julia Robinson's 100th Birthday** *December 9, 2019, Mathematical Sciences Research Institute, Berkeley, CA.* Julia Robinson (1919-1985) was a leading mathematical logician of the twentieth century, and a notable first in many ways, including the first woman president of the American Mathematical Society and the first woman mathematician elected to membership in the National Academy of Sciences. Her most famous work, alongside others including Martin Davis and Hilary Putnam, led to Yuri Matijasevich's negative solution of Hilbert's Tenth Problem, showing that there is no general algorithmic solution for Diophantine equations. Her 1948 thesis linked the undecidability of the field of rational numbers to Gödel's proof of undecidability of the ring of integers, and she contributed in other topics as well.

  A Symposium on the occasion of Julia Robinson's 100th birthday will be held on Monday December 9, 2019 at MSRI. Confirmed participants in this celebration of her work and of mathematics insprired by her research include Lenore Blum, who will give a public lecture; Lou van den Dries; Martin Davis; Kirsten Eisentrager; and (provisionally) Yuri Matijasevich. Read more and RSVP here: `http://www.msri.org/general_events/24293`.

- **Formal Methods in Mathematics / Lean Together 2020** *January 6–10, 2020, Carnegie Mellon University, Pittsburgh, Pennsylvania.* This meeting will focus on formal methods in pure and applied mathematics, including interactive theorem proving, automated reasoning, verification of symbolic and numeric computation, general mathematical infrastructure, and the Lean theorem prover. For more information, see `http://www.andrew.cmu.edu/user/avigad/meetings/fomm2020`.

- **Days in Logic 2020** *January 30–February 1, 2020, Universidade de Lisboa, Lisbon, Portugal.* Days in Logic is a biennial general meeting in logic taking place in Portugal since 2004. Invited speakers include Mirna Dzamonja, Paulo Oliva, Luca Tranchini and Cristina Sernadas. Members of the organizing committee: F. Ferreira, G. Ferreira and B. Dinis. For more information, see `http://dil2020.campus.ciencias.ulisboa.pt`.

- **Graduate Student Conference in Logic (XXI)** *April 18-19 2020, University of Notre Dame.* This annual conference is run for and organized by graduate students in logic. The speakers consist of graduate students from Midwestern universities. There is representation from computability theory, model theory, and set theory. For more information, visit `http://sites.nd.edu/gscl-2020/`.

- **Computability in Europe 2020** *June 29 - July 3, 2020, Salerno, Italy.* CiE 2020 will be hosted by the University of Salerno, at its Fisciano campus. The invited speakers are P. Boldi, V. Bruyère, E. Fokina, A. Pouly, A. Restivo, and D. Woods, with tutorials offered by V. Williams and M. Ziegler. The co-chairs of the Program Committee are M. Anselmo and A. Pauly. The deadline for registering abstracts is January 3, 2020. Further information is available at `cie2020.wordpress.com`.

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

- **Call for Proposals: 2021 AMS-ASL Joint Special Session.** The ASL Committee on Logic in North America seeks proposals for an AMS-ASL Joint Special Session to be held at the Joint Mathematics Meetings in Washington, DC, January 6–9, 2021. Proposals or requests for information should be sent to the Committee Chair, Natasha Dobrinen (`natasha.dobrinen@du.edu`). The deadline for receipt of proposals is January 8, 2020.

- **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, Iran, 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 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 January 2020. Items to be included should reach the Secretary-Treasurers before January 7, 2020.

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