NOTICES

- IN MEMORIAM: BARRY COOPER. Stuart Barry Cooper (known as Barry), Professor of Mathematical Logic at University of Leeds (UK), died on October 26, 2015, aged 72. Raised in Bognor Regis, Barry was educated at Chichester High School for Boys and then Oxford, from which he graduated in 1966. He studied for a Ph.D. under Reuben Goodstein at Leicester, but worked mainly in Manchester with Mike Yates, the only established UK researcher in Barry's chosen field: the structure-theory of the Turing degrees, an exciting emerging field, then largely confined to North America. Barry was appointed to the University of Leeds as a Lecturer in 1969, and remained there throughout his career, excepting regular sabbaticals and invited visits abroad. The years 1971–1973, which he spent at the University of California, Berkeley, were especially formative for his research career, and his left-wing politics found common ground with student activism and the civil rights movement. He became a Professor in 1996 at the University of Leeds, and was awarded an Honorary Degree from Sofia University in 2011.

  Barry's research focus in mathematical logic was always computability, the study of the theoretical limits of the power of computers (or Turing machines). In the latter decades of the twentieth century, this blossomed into a mathematical discipline of astonishing beauty and profundity, a program in which Barry played a prominent international role, publishing numerous important papers, a monograph (*Computability Theory*, Chapman-Hall/CRC, 2003), and various edited collections. Enviably successful at securing research funding, he supervised many successful Ph.D. students, several of whom are now well-established mathematicians. Older computability theorists will recall the Recursive Function Theory Newsletter, an informally distributed news-sheet of abstracts which Barry invented in the 1970's after returning from Berkeley. Aided by Len Smith (who sadly passed away just months after Barry's death) and Stan Wainer, he perhaps already foresaw the growth of the subject. In 2005, Barry became the founder and President of Computability in Europe, a flourishing association of now over a thousand members and a major annual conference. (It was born in unpromising circumstances at a meeting to discuss a rejected European funding application.)

  Within computability, Barry was known for his deep and technically complex research, particularly with regard to the Turing and enumeration degree structures. He defined the jump classes, which have become a central object of study in the Turing degrees and all degree structures permitting a jump operation. His theorem, that every degree computably enumerable in and above $0'$ is the jump of a minimal degree, is now regarded as one of the classics of the area. He battled difficult, long-standing problems around definability and automorphisms within degree structures. Over the years, he did much to champion the study of the enumeration degrees, proving many of the fundamental theorems and defining the appropriate notion of jump for that structure. Always one with an eye for real world applications, in recent years Barry had been particularly concerned with the practical significance of the limits of computability, and their implications for our understanding of the scientific process.

  Barry's achievements extended well beyond mathematics. Having played rugby for England Under-16s, he became a keen long-distance runner, with a personal best marathon time of 2 hours, 48 minutes. Another passion was jazz and, more generally, experimental music. He co-founded the Leeds Jazz non-profit organization in 1984, and helped attract top artists to the city, including Art Blakey and the Art Ensemble of Chicago. A committed left-wing political activist, Barry was involved in various campaigns, notably the Chile Solidarity Campaign for refugees from 1973, and the Miners' Strikes of 1984–1985.

The year 2012 was the centenary of the birth of Alan Turing, a celebration which Barry led with boundless energy, and which did much to bring Turing the public recognition he deserves. Barry chaired a 6-month scientific program on Semantics and Syntax at the Isaac Newton Institute in Cambridge, and became the broader celebration's spokesman on Twitter and in the media, including in the Guardians' Northerner column. One outcome was *Alan Turing: His Work and Impact*, edited by Barry and Jan van Leeuwen, a hefty and definitive volume which won the Association of American Publishers R.R. Hawkins Award.

Popular with undergraduates as an outstanding and charismatic teacher, Barry was deeply concerned about his undergraduate and postgraduate students and their futures. He generated intellectual activity well beyond the obvious academic structures, for example, running in recent years an informal reading group around themes in logic and the philosophy of science. He was always quick to encourage and support junior colleagues, or junior members of the national and international research community.

Barry's intense research, teaching, and Ph.D. supervision, as well as his role with the Turing Year, Computability in Europe, and on EU funding panels, continued to the end of his life. When he learned in October of his diagnosis, his response was to try to accelerate his efforts to set his Ph.D. students on a good course, conclude major research projects, and complete several papers and books. He invited two colleagues to Leeds to work on one of the major open problems in the area. Sadly, they arrived too late to work with him, but will continue to tackle the question on which he had worked for many years.

Barry died peacefully after a short illness. He is survived by his wife Kate and their sons Evan and Mark, and by his daughters Carrie and Shirin with his former partner Sue Buckle.

- 2016 SHOENFIELD PRIZES. The ASL invites nominations for the Shoenfield Prizes for outstanding expository writing in the field of logic. There are two Shoenfield prizes, one for books and one for expository articles, each to be awarded simultaneously every three years; the Shoenfield Prizes were first awarded in 2007. Any book first published in the past 9 years may be considered for the book award. Any article published in the past 6 years may be considered for the article award. Nominations should be submitted to Simon Thomas (sthomas@math.rutgers.edu), Chair of the ASL Committee on Prizes and Awards. The deadline for nominations for the 2016 Prizes is November 1, 2016.

  The Shoenfield prizes were established by the ASL to honor the late Joseph R. Shoenfield for his many outstanding contributions to logic and to the ASL. Generations of logicians have especially valued Shoenfield's expository gifts, and his writings provide models of lucidity and elegance. The fund on which the Prize is based is administered by the ASL and the award is made by the Association upon the recommendation of the ASL Committee on Prizes and Awards. For general information about the Prize, visit `http://www.aslonline.org/info-prizes.html`.

- 2016 SACKS PRIZE. The ASL invites nominations for the 2016 Sacks Prize for the most outstanding doctoral dissertation in mathematical logic. Nominations must be received by September 30, 2016. The Sacks Prize was established to honor 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://www.aslonline.org/info-prizes.html`.

  Anyone who wishes to make a nomination for the 2016 Sacks Prize should consult the webpage `http://www.aslonline.org/Sacks_nominations.html` for the precise details of the application process. A brief summary of the procedure is provided below.

  Students who defend their dissertations (equivalent to the American doctoral dissertation) between October 1, 2015, and September 30, 2016, 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 web site from which an electronic copy in .pdf form can be downloaded, and an independent second letter of recommendation. Nominations should be sent to the Committee Chair, Simon Thomas; .pdf files sent as attachments by email to sthomas@math.rutgers.edu are preferred. The form of such letters and other pertinent details can be found at the web site above, and need to be read prior to submitting a nomination. Correspondence should be addressed to Simon Thomas, Department of Mathematics, Rutgers University, Hill Center - Busch Campus, 110 Frelinghuysen Road, Piscataway, NJ 08854-8019, USA.

Those wishing to contribute to the Sacks Prize Fund may send contributions to the ASL office (ASL, Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604); All such contributions they are tax-deductible within the USA.

- 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://www.aslonline.org/worldbankeconomies.html includes Brazil, Bulgaria, China, 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://www.aslonline.org/membership-individual.html. After the initial two-year period new members under this program will pay the reduced membership dues, currently at US$18, (see below) as long as their country of residence is on the ASL's list of developing economies.

- DISCOUNTED DUES FOR NEW ASL INDIVIDUAL MEMBERS. The ASL now offers a 50% discount on dues for new individual members during each of the first two years of membership. For more information, visit http://www.aslonline.org/membership-individual.html.

- CALL FOR PROPOSALS: 2018 AMS-ASL JOINT SPECIAL SESSION. The ASL Committee on Logic in North America requests proposals for an AMS-ASL Joint Special Session to be held at the Joint Mathematics Meetings in San Diego, January 10–13, 2018. Proposals or requests for further information should be sent to the Committee Chair, Reed Solomon (email: david.solomon@uconn.edu). The deadline for receipt of proposals is January 4, 2017.

- CALL FOR PROPOSALS: 2019 NORTH AMERICAN ANNUAL MEETING. The ASL Committee on Logic in North America requests proposals for the 2019 ASL North American Annual meeting, to be held sometime in the first five months of 2019. The committee seeks a university somewhere in North America and a local committee to host the meeting and handle the local arrangements. The ASL meetings ordinarily cycle geographically in the pattern: east (2016), west (2017), midwest (2018). Thus, for 2019 the committee seeks a location in the east. Any reasonable proposal, however, will be considered. For more information, interested parties should contact the Committee Chair, Reed Solomon (email: david.solomon@uconn.edu) no later than November 2, 2016.

- ZILBER AWARDED POLYA PRIZE. Boris Zilber of the University of Oxford was awarded the 2015 Pólya Prize of the London Mathematical Society "for his visionary contributions to model theory and its applications." The Prize is awarded in recognition of outstanding creativity in, imaginative exposition of, or distinguished contribution to mathematics within the United Kingdom.

- NEW ASL BOOKS. To see new books in the ASL's *Lecture Notes in Logic* and *Perspectives in Logic* series, visit http://www.aslonline.org/books-lnl-available.html for LNL volumes and http://www.aslonline.org/books-perspectives_cup_springer.html for Perspectives volumes.

- BOOK AND JOURNAL DISCOUNTS FOR ASL MEMBERS. Several publishers offer discounts on books and journals to ASL members. For a detailed description of these discounts, visit

`http://www.aslonline.org/members-discounts.html`, or write to the ASL Business Office.

- STUDENT TRAVEL AWARDS: THE 2017 ASL NORTH AMERICAN ANNUAL MEETING, AND OTHER ASL OR ASL-SPONSORED MEETINGS. The ASL will make available modest travel awards to graduate students in logic so that they may attend the 2017 ASL North American Annual Meeting (the announcement for travel award applications to the 2017 ASL European Summer Meeting will be made later in 2016). Student members of the ASL also may apply for travel grants to other ASL or 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. In addition to funds provided by the ASL, the program of travel grants is supported by a grant from the US National Science Foundation; NSF funds for meetings outside of North America may be awarded only to students at USA universities and to citizens and permanent residents of the USA. Air travel paid for using NSF funds must be in accordance with the Fly America Act. Application by email is encouraged; put "ASL travel application" in the subject line of your message.

  For the 2017 ASL North American Annual Meeting, applications and recommendations should be received before the deadline of December 16, 2016, by the Program Chair: Justin Moore, Malott Hall, Department of Mathematics, Cornell University Ithaca, NY 14853-4201, USA; Fax: 607-255-7149; email: justin@math.cornell.edu. Applications by email are preferred.

  For ASL student member travel grants to ASL or ASL-sponsored meetings (other than the 2017 North American Annual Meeting and the 2017 European Summer Meeting), applications and recommendations should be received at least three months prior to the start of the meeting at the ASL Business Office: ASL, Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604, USA; Fax: 1-845-437-7830; email: asl@vassar.edu. Decisions will be communicated at least two months prior to the meeting.

- 2016–17 ASL WINTER MEETING (WITH JOINT MATHEMATICS MEETINGS). *January 6–7, 2017*, *Atlanta, Georgia*. This meeting will take place in conjunction with the Joint Mathematics Meetings taking place January 4–7, 2016. The invited speakers include: C. Conley, A. Dolich, M. Foreman, R. Moosa, A. Shlapentokh, H. Towsner, and L. Brown Westrick. The members of the Program Committee are J. Franklin, I. Goldbring, and C. Rosendal (Chair).

- 2016–17 ASL SPRING MEETING (WITH APA). *April 12–15, 2017*, *Seattle, Washington*. This meeting will be held jointly with the Annual Meeting of the Pacific Division of the American Philosophical Association. There will be three invited sessions (with speakers in parentheses): *Inclusiveness in logic education* (organized by A. Yap on behalf of the ASL Committee on Logic Education, with details to come); *Intuitionism and intuitionistic logic* (R. Iemhoff, J. Rand Moschvakis, and M. van Atten); and *Modality and modal logic* (P. Fritz, T. Lando, and F. Liu). The members of the Program Committee are W. Holliday, A. Yap, and R. Zach (Chair).

- 2017 ASL NORTH AMERICAN ANNUAL MEETING. *March 21–25, 2017*, *Boise, Idaho*. The twenty-eighth annual Gödel Lecture will be delivered. The invited speakers include: M. Aschenbrenner, C. Conley, I. Kalimullin, P. Koellner, A. Medvedev, A. Rinot, and M. Seisenberger. A tutorial will be offered by V. Harizanov. The members of the Program Committee are: L. Babinkostova, G. Cherlin, B. Csima, A. Kolokolova, and J. Moore (Chair). The Local Organizing Committee includes: L. Babinkostova, A. Cortens, S. Coskey, S. Crowley, R. Holmes, A. Jackson, and M. Scheepers (Chair).

  Abstracts for contributed talks submitted by ASL members will be published in *The Bulletin of Symbolic Logic* if they satisfy the Rules for Abstracts (see below). Abstracts must

be received by the deadline of December 2, 2016, at the ASL Business Office: ASL, Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604, USA; Fax: 1-845-437-7830; email: asl@vassar.edu.

- RULES FOR ABSTRACTS. The rules for abstracts of contributed talks at ASL meetings (including those submitted "by title") may be found at `http://www.aslonline.org/rules_abstracts.html`. 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.

- WORKSHOP ON SET-THEORETICAL ASPECTS OF THE MODEL THEORY OF STRONG LOGICS. *September 26–30, 2016*, *Bellaterra, Catalonia, Spain*. The workshop is one of two main events of the research program on *Large Cardinals and Strong Logics* that will take place at the Centre de Recerca Matemàtica, September 5–December 16, 2016. The workshop is intended to provide an opportunity to learn about the recent exciting results on the connections between the theory of large cardinals and the model theory of strong logics and to serve as a springboard for future research. The Scientific Committee includes: M. Magidor and J. Väänänen. For further information, visit `http://www.crm.cat/en/Activities/Curs_2016-2017/Pages/W1_LargeCardinals.aspx`. (ASL Sponsored Meeting.)

- APPLICATIONS OF STRONG LOGICS IN OTHER AREAS OF MATHEMATICS. *November 14–18, 2016*, *Bellaterra, Catalonia, Spain*. This is the second of the two main events of the research program on *Large Cardinals and Strong Logics* that will take place at the Centre de Recerca Matemàtica, September 5–December 16, 2016 (see above for the first workshop). The Scientific Committee includes: M. Magidor and J. Väänänen. For further information, visit `http://www.crm.cat/en/Activities/Curs_2016-2017/Pages/IRP-Large-Cardinals-and-Strong-Logics.aspx`. (ASL Sponsored Meeting.)

- SEVENTH INDIAN CONFERENCE ON LOGIC AND ITS APPLICATIONS (ICLA). *January 5–7, 2017*, *Kanpur, India*. This event will be held at the Institute of Technology in Kanpur, and will be co-located with the Ninth Methods for Modalities Conference to be held January 8–10, 2017 (see `https://www.cse.iitk.ac.in/users/icla/M4M/`). The invited speakers include: N. Asher, N. Dobrinen, L. Ong, and R. Zach. The Program Committee Co-Chairs are S. Ghosh and S. Prasad. For further information, visit `http://www.cse.iitk.ac.in/users/icla/`. (ASL Sponsored Meeting.)

- COMPUTABILITY AND COMPLEXITY SYMPOSIUM 2017. *January 5–8, 2017*, *Raumati, New Zealand*. This meeting is in honor of the sixtieth birthday of Rod Downey. The organizers are: P. Cholak, A. Day, M. Fellows, N. Greenberg, B. Khoussainov, and A. Melnikov. For further information, visit `http://sms.victoria.ac.nz/Events/CCS2017/WebHome`. (ASL Sponsored Meeting.)

- MODEL THEORY CONFERENCE. *January 9–13, 2017*, *Stellenbosch, South Africa*. The invited speakers include: A. Chernikov, F. Jahnke, G. Jones, and A. Macintyre. The organizers are G. Boxall and C. Kestner. For further information, visit `http://math.sun.ac.za/boxall-conference/`. (ASL Sponsored Meeting.)

- NEW ZEALAND MATHEMATICAL RESEARCH INSTITUTE SUMMER SCHOOL 2017. *January 9–14, 2017*, *Napier, New Zealand*. The program for this event includes five tutorial series aimed at graduate students. The tutorials will be offered by: D. Hirschfeldt, J. Lutz, M. Malliaris, A. Montalban, and W.H. Woodin. The organizers are A. Day and N. Greenberg. For further information, visit `http://sms.victoria.ac.nz/Events/NZMRI2017/WebHome`. (ASL Sponsored Meeting.)

- MODEL THEORY AND APPLICATIONS. *January 16–19, 2017*, *Mons, Belgium*. The invited speakers include: L. Bélair, A. Bès, Z. Chatzidakis, R. Cluckers, P. D'Aquino, A.M.W. Glass, I. Halupczok, A. Macintyre, N. Mariaule, D. Macpherson, M. Rigo, K. Tent, and F. Wagner. The members of the Scientific Committee are: R. Cluckers, F. Delon, I. Halupczok, and F. Point. The Organizing Committee includes: Q. Brouette, P.-E. Caprace, C. Michaux,

M. Rigo, and M. Volkov. For further information, visit `http://www.mathconf.org/mta2017/`. (ASL Sponsored Meeting.)

- CHERLIN WEEKEND. *September 30–October 2, 2016*, *New Brunswick, New Jersey*. The invited speakers include: Z. Chatzidakis, A. Chernikov, L. van den Dries, L. Haykazyan, A. Kechris, A. Macintyre, M. Mallaris, T. Scanlon, S. Shelah, and B. Zilber. For further information, visit `http://www.math.rutgers.edu/~gs481/cherlinweekend.html`.