THE BULLETIN OF SYMBOLIC LOGIC
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NOTICES

- IN MEMORIAM: Alonzo Church died on August 11, 1995, in Hudson, Ohio; he was born on June 14, 1903, in Washington, DC. The family has suggested that memorial contributions be made to the Association (address on inside covers) and marked "For the Alonzo Church Fund." An article on Church's life and contributions to logic appears elsewhere in this issue of the *Bulletin*.

- STUDENT TRAVEL GRANTS: The ASL will again make available modest travel grants to graduate students in logic, so that they may attend the 1995–96 ASL Annual Meeting in Madison or the 1996 ASL European Summer Meeting in Donostia, San Sebastián, Spain; see below for information about these meetings. To be considered for a Student Travel Grant, 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 (one page) and should include (1) your name, (2) your home institution, (3) your supervisor's name, (4) a one-paragraph description of your studies in logic, and (5) your estimate of the travel expenses you will incur. (Only modest grants will be possible, partially covering travel costs and perhaps some of the living expenses during the meeting.) For the 1995–96 Annual Meeting, your application materials should be sent by the deadline of January 12, 1996, to Professor H. J. Keisler, Mathematics Department, University of Wisconsin, Madison, Wisconsin 53706; email: `keisler@math.wisc.edu`. For the 1996 European Summer Meeting, they should be sent by the deadline of April 1, 1996, to Professor J. M. Larrazabal, Logic Colloquium '96, ILCLI, University of the Basque Country, Apdo. 220, 20080 Donostia, San Sebastián, Spain; telephone: +34 43 320940; Fax: +34 43 293677; email: `ilcli@sf.ehu.es`. For both meetings email is allowed, in fact encouraged.

- THE 1995–96 ASL WINTER MEETING will be held January 12–13, 1996, in conjunction with the Annual Meeting of the American Mathematical Society, in Orlando, Florida. The dates of the AMS meeting are January 10–13. The Program Committee for the ASL meeting consists of J. Larson, W. Mitchell, Chair, T. Slaman, and C. Wood. Invited speakers include P. Cholak, J. Feigenbaum, D. Marker, G. Hjorth, K. Holland, and D. Reed. During the AMS meeting there will be a Special Session on Recursive and Feasible Mathematics, organized by D. Cenzer and J. Remmel. This will take place on January 10 and the morning of January 11. Speakers in this Special Session include L. Blum, D. Cenzer, P. Cholak, W. Gasarch, V. Harizanov, E. Griffor, T. Hummel, C. Jockusch, B. Khoussainov, H. Kierstead, K. Ko, W. Moser, A. Nerode, J. Remmel, J. Schmerl, R. Shore, and T. Slaman. The ASL sessions will take place in the Clarion Plaza Hotel, which is the main meeting headquarters and is next to the Convention Center where many of the AMS sessions will be held.

- THE 1995–96 ASL ANNUAL MEETING will be held March 9–12, 1996, at the University of Wisconsin in Madison, Wisconsin. The meeting will begin early on March 9 and end at noon on March 12. The Program Committee consists of S. Buss, P. Cholak, H. J. Keisler, Chair, D. A. Martin, and M. Resnik. The local organizing committee consists of M. Dzamonja, S. Lempp, Chair, T. Millar, and A. Miller. At this meeting the Seventh Annual Gödel Lecture will be given by Saharon Shelah, and Yiannis Moschovakis will give his Retiring Presidential Address. Invited hour speakers include Tomek Bartoszynski, Harvey Friedman, Geoffrey Hellman, Bakhadyr Khoussainov, Phokion Kolaitis, Richard Shore, Charles Steinhorn, and Stevo Todorčević. Invited special session speakers include Jody Azzouni, Mark Balaguer, Paul Beame, Mirna Dzamonja, Alan Letarte, Colin McLarty, Itay Neeman, Keith Simmons, Stanislaw Solecki, and Jindrich Zapletal. Abstracts of contributed papers from ASL members (300 words, one-page limit) should be sent by the deadline of January 12, 1996, to: H. J. Keisler, Mathematics Department, University of Wisconsin, Madison, Wisconsin 53706; email: `keisler@math.wisc.edu`; WWW: `http://math.wisc.edu/~lempp/conf/asl96.html`. See below for information about a Model Theory Conference in honor of H. J. Keisler which will be held immediately after the ASL Annual Meeting in Madison.

- THE 1996 ASL EUROPEAN SUMMER MEETING (LOGIC COLLOQUIUM '96) will be held July 9–15, 1996, in Donostia, San Sebastián, Spain. (Note the change in dates from earlier announcements.) Abstracts (300 words, one-page limit) should be submitted by the deadline of April 1, 1996, to the address below. The registration fee is 28,000 ptas. (35,000 ptas. after April 1). Students and accompanying persons may register for 14,000 ptas. (18,000 ptas. after April 1). Further information may be obtained from: Jesus M. Larrazabal, Logic Colloquium '96, ILCLI, University of the Basque Country, Apdo. 220, 20080 Donostia, San Sebastián, Spain; telephone: +34 43 320940; Fax: +34 43 293677; email: `ilcli@sf.ehu.es`. Also see the Notices pages of the June, 1995, issue of this *Bulletin*.

- THE 1996–97 ASL WINTER MEETING will be held in conjunction with the Annual Meeting of the American Mathematical Society during January 8–11, 1997, in San Diego, California.

- THE 1996–97 ASL ANNUAL MEETING will be held March 22–25, 1997, at the Massachusetts Institute of Technology in Cambridge, Massachusetts. Chair of the local organizing committee is Sy Friedman.

- THE 1997 ASL EUROPEAN SUMMER MEETING (LOGIC COLLOQUIUM '97) will be held in early July, 1997, in Leeds, England. (Tentative dates are July 7–13, 1997.) The Program Committee consists of G. Boolos, S. Buss, S. B. Cooper, W. Hodges, M. Hyland, A. H. Lachlan, A. Louveau, Y. Moschovakis, L. Pacholski, H. Schwichtenberg, T. Slaman, J. K. Truss, and H. Woodin. The local organizing committee consists of S. B. Cooper, J. Derrick, F. Drake, H. D. Macpherson, A. Slomson, J. Truss, and S. Wainer.

- THE ELEVENTH ANNUAL IEEE SYMPOSIUM ON LOGIC IN COMPUTER SCIENCE (LICS95) will be held July 27–30, 1996, in New Brunswick, New Jersey, as part of the 1996 Federated Logic Conference (see below). The deadline for submitting extended abstracts of papers is December 13, 1995. Full information is availble at the LICS World Wide Web home page at the URL `http://www.research.att.com/lics/` and by anonymous ftp at the address `research.att.edu` in directory `/dist/lics`. Further information may also be obtained from the LICS Publicity Co-chairs, Amy Felty and Douglas Howe, AT&T Bell Laboratories, 600 Mountain Avenue, Murray Hill, New Jersey 07974; email: `felty@research.att.com`, `howe@research.att.com`. This meeting is co-sponsored by the Association for Symbolic Logic.

- THE 1996 ANNUAL CONFERENCE OF THE AUSTRALASIAN ASSOCIATION FOR LOGIC will be held July 5–8, 1996, at the University of Queensland in Brisbane, Australia. This conference is being organized by the incoming AAL President, Ian Hinckfuss, Philosophy Department, University of Queensland, Australia, 4072; email: `Hinck@lingua.cltr.uq.oz.au`; Fax: +61 (0)7 33651968; telephone: +61 (0)7 33652578. For information about accommodations, please contact: Jeff Sipek, Operations Manager, The Women's College, University of Queensland, Australia, 4072; telephone: +61 (0)7 38701171; Fax +61 (0)7 38709511.

- THE 1995–96 DIMACS SPECIAL YEAR ON LOGIC AND ALGORITHMS will include the following 1996 Workshops (organizers in parentheses): Finite Models and Descriptive Complexity, January 14–17, 1996 (N. Immerman and P. Kolaitis); The Satisfiability Problem: Theory and Applications, March 11–13, 1996 (D.-Z. Du, J. Gu, and P. Pardalos); Computational and Complexity Issues in Automated Verification, March 25–29, 1996 (B. Brayton, A. Emerson, and J. Feigenbaum); Logic and Optimization, April 10–12, 1996 (K. McAloon and C. Tretkoff); Feasible Arithmetics and Length of Proofs, April 21–24, 1996 (P. Beame and S. Buss); and Partial Order Methods in Verification, July 24–26, 1996 (D. Peled, G. Holzmann, and V. Pratt). Application forms and further information may be found on the World Wide Web at the URL: `http://dimacs.rutgers.edu`; telnet to `info.rutgers.edu 90`; email: `center@dimacs.rutgers.edu`; telephone: 908-445-5928; Fax: 908-445-5932; paper mail to DIMACS Center, Rutgers University, P.O. Box 1179, Piscataway, New Jersey 08855-1179.

- THE BOSTON COLLOQUIUM FOR PHILOSOPHY OF SCIENCE will present two programs of interest to logicians in early 1996: (I) *Wittgenstein on Mathematics* will be held January 25, 1996, 7–10 pm, with lectures by Hilary Putnam and Jaakko Hintikka. (II) *Proof and Progress in Mathematics* will be held February 12, 1996, 9:00 am to 5:00 pm, with lectures by A. Jaffe, S. MacLane, J. Hintikka, G.-C. Rota, and B. Mazur. The programs will be held in the Terrace Lounge (Program I) and the Conference Auditorium (Program II), George Sherman Union, 775 Commonwealth Avenue, Boston, Massachusetts. For further information contact A. Tauber, Center for Philosophy and History of Science, Boston University, 745 Commonwealth Avenue, Boston, Massachusetts 02215; telephone: 617-353-2604; Fax: 617-353-6805; email: `atauber@acs.bu.edu`.

- A VERY INFORMAL GATHERING of logicians will be held on January 26–28, 1996, at the University of California at Los Angeles. The meeting will begin, as usual, with an informal lunch at noon on Friday January 26. The first lecture will be given at 2:00 pm on Friday, and the last lecture will finish at 12:00 noon on Sunday. Those interested in receiving further information and the program of talks (sometime in late October) should send email to Yiannis Moschovakis, at `ynm@math.ucla.edu`.

- A MODEL THEORY CONFERENCE IN HONOR OF H. J. KEISLER on the occasion of his 60th birthday will be held March 12–13, 1996, in Madison, Wisconsin, immediately following the 1995–96 Annual ASL Meeting (see above). The meeting will include lectures on topics such as finite model theory, nonstandard analysis and probability, and applications of model theory to algebraic geometry, real analytic functions, computer science, linguistics, and set theory. The meeting will also feature a banquet in honor of H. J. Keisler on the night of March 12. Invited speakers include J. Barwise, E. Bouscaren, Y. Gurevich, C. W. Henson, A. Macintyre, D. Marker, and W. H. Woodin. The organizers are K. Bruce, K. Compton, C. W. Henson, S. Lempp, and C. Steinhorn, Chair. Depending on availability of funds, it is hoped that there will be modest travel grants for some graduate students in logic, so that they may attend this conference. To be considered for a Student Travel Grant, 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 (one page) and should include (1) your name, (2) your home institution, (3) your supervisor's name, (4) a one-paragraph description of your studies in logic, and (5) your estimate of the travel expenses you will incur. (Only modest grants will be possible, partially covering travel costs and perhaps some of the living expenses during the meeting.) Application materials should be sent by the deadline of January 31, 1996, to Professor Charles Steinhorn, Mathematics Department, Vassar College, Poughkeepsie, New York 12601; email: `steinhorn@vaxsar.vassar.edu`. The use of email for applications is allowed, in fact encouraged. (NOTICE that the application procedure is identical to that for the Annual ASL Meeting, but applications for *this* meeting should be sent to Professor Steinhorn.) Further information may be obtained as follows; for the program: Prof. Charles

Steinhorn, email: steinhorn@vaxsar.vassar.edu; telephone: 914-437-5525; Fax: 914-437-7065; for local arrangements: Prof. Steffen Lemp, lempp@math.wisc.edu; telephone: 608-263-1975; see also WWW: http://math.wisc.edu/~lempp/conf/asl96.html.

- The Sixth Conference on Theoretical Aspects of Rationality and Knowledge (TARK VI) will take place March 17–20, 1996, in De Zeeuwse Stromen, The Netherlands (a seaside resort). Previously a by-invitation-only conference, TARK is now open to all interested attendees. The Conference Chair is J. van Benthem, ILLC, Department of Mathematics and Computer Science, University of Amsterdam, Plantage Muidergracht 24, NL-1018 TV Amsterdam, The Netherlands; Fax: +31 20 525 5206; email: johan@fwi.uva.nl.

- The Boise Extravaganza in Set Theory will take place March 29–31, 1996, at Boise State University, Boise, Idaho. The invited speakers are J. Brendle, A. Dow, J. Larson, and S. Shelah. Contributed talks are welcome; interested participants should contact one of the organizers: Tomek Bartoszynski: telephone: 208-385-3010; email: tomek@math.idbsu.edu; Alex Feldman: telephone: 208-385-3374; email: alex@math.idbsu.edu; Marion Scheepers: email: marion@math.idbsu.edu.

- A Special Session on Real Analytic Geometry and o-Minimal Structures will be held as part of the regional meeting of the American Mathematical Society in Baton Rouge, Louisiana, April 19–21, 1996. Organizers of this Special Session are L. van den Dries and C. Miller. The goal is to foster communication between model theorists working on o-minimal structures, and analysts and geometers working on related matters (semialgebraic, semianalytic, and subanalytic sets; Pfaffian functions; geometric control theory; and others). Further information may be obtained from Chris Miller at clmiller@math.uic.edu.

- The 3rd Workshop on Logic, Language, Information, and Computation (WoLLIC '96) and the 11th Brazilian Conference on Mathematical Logic (EBL '96) will be held May 8–10, 1996, in Salvador (Bahia), Brazil. Invited speakers include A. Blass, S. Feferman, and J. Groenendijk. The Program Committee consists of W. A. Carnielli, M. Costa, V. de Paiva, R. de Queiroz, Chair, A. Haeberer, T. Pequeno, L. C. Pereira, K. Segerberg, A. M. Sette, and P. Veloso. Interested participants should send a two-page abstract of their contribution (preferably by email) by the deadline of March 8, 1996, to the Organizing Committee Chair: R. de Queiroz, Departamento de Informática, Universidade Federal de Pernambuco (UFPE) em Recife, Caixz Postal 7851, Recife, PE 50732-970, Brazil; email: wollic96@di.ufpe.br; telephone: +55-81-271-8430; Fax: +55-85-223-1333; WWW: http://www.di.ufpe.br/simposios/wollic.html.

- An International Conference on Modern Algebra and its Applications will be held May 14–18, 1996, at Vanderbilt University in Nashville, Tennessee. The Organizing Committee consists of W. Blok, R. Freese, G. F. McNulty, M. Mislove, K. Keimel, R. McKenzie, Co-chair, D. Pigozzi, R. W. Quackenbush, M. Sapir, S. Tschants, C. Tinakis, Co-chair, and R. Willard. For further information contact: Conference on Modern Algebra and its Applications, Vanderbilt University, Department of Mathematics, 1326 Stevenson Center, Nashville, Tennessee 37240; email: cmaa@math.vanderbilt.edu; telephone: 615-322-6672; Fax: 615-343-0215.

- The Third International Workshop on Temporal Representation and Reasoning (TIME-96) will be held May 19–20, 1996, in Key West, Florida. Further information may be obtained from: TIME-96, Luca Chittaro and Angelo Montanari, Dipartimento di Matematica e Informatica, Universitá di Udine, Via delle Scienze, 206, 33100 Udine, Italy; email: time96@dimi.uniud.it.

- The Sixth Asian Logic Conference will be held May 20–24, 1996, in Beijing, China. **Please note that this is a correction of the dates that were published earlier.** For further information contact: The Sixth Asian Logic Conference, Institute of Software, Academia Sineca, Beijing, China; Fax: (861)2562533; email: qhuang@ox1.ios.ac.cn.

- The 11th Annual IEEE Conference on Computational Complexity (formerly Structure in Complexity Theory) will be held May 24–27, 1996, as part of the Federated Computing Research Conference in Philadelphia, Pennsylvania. Further information may be obtained from the conference publicity chair: Luc Longpré, Computer Science Department, University of Texas at El Paso, El Paso, Texas, 79968; email: longpre@cs.utep.edu; WWW: http://cs.utep.edu/longpre/complexity.html.

- Kurepa's Symposium, an international symposium dedicated to the memory of Djuro Kurepa (1907–1993) will be held May 27–28, 1996, in Belgrade. The Organizing and Program Committee will be chaired by Stevo Todorčević. The main subject areas of the Symposium will be set theory, general topology, number theory, and other areas related to Kurepa's work. Further information may be obtained from: Serbian Scientific Society, Šafarokova 7, Belgrade, Yugoslavia; telephone/Fax: (38111) 3224-939.

- A NATO Advanced Study Institute (ASI) on Nonstandard Analysis and its Applications will be held July 1–13, 1996, in Edinburgh, Scotland. The organizers are N. J. Cutland (Hull), Director, L. Arkeryd (Goteborg), and C. W. Henson (Illinois). This intensive Instructional Conference will be hosted by the International Centre for Mathematical Sciences (ICMS), at the University of Edinburgh. It is aimed at the postdoctoral level, but will be accessible to good research students. The aim is to teach the basics of nonstandard analysis and to make the range of applications more widely known among research mathematicians. There will be courses and tutorial sessions covering: Foundations of nonstandard analysis and nonstandard models, nonstandard real analysis, topological applications, Loeb measure theory, applications in probability and stochastic analysis, functional analysis, differential equations (ODEs, PDEs, SDEs and SPDEs), and applications in mathematical physics and mathematical finance theory. The lecturers will include L. Arkeryd, E. Benoit, M. Capinski, N. J. Cutland, C. W. Henson, R. Jin, H. J. Keisler, P. E. Kopp, T. Lindstrom, P. A. Loeb, D. A. Ross, and M. Wolff. Financial support for suitable participants from NATO countries and NATO Cooperation Partner countries is available. (Apply by January 31, 1996, to the address below.) Further information may be obtained from: ICMS, 14 India Street, Edinburgh, EH3 6EZ Scotland; email: icms@maths.ed.ac.uk; Fax: (+44)-(0)131-220-1053; WWW: http://www.ma.hw.ac.uk/icms/.

- The 1996 Federated Logic Conference (FLoC '96) will be held July 27–August 3, 1996, at Rutgers University, New Brunswick, New Jersey. The participating conferences are: Rewriting Techniques and Applications (RTA), Conference on Automated Deduction (CADE), Computer-Aided Verification (CAV), and Logic in Computer Science (LICS). LICS and RTA will be held in parallel during the first four days of FLoC. CADE and CAV will be held during the last four days, with CADE workshops running in parallel with the last day of LICS. Plenary events involving all the conferences are scheduled. Each of these conferences has its own procedure and deadline for submitting papers. The conference is being hosted by the Center for Discrete Mathematics and Computer Science (DIMACS) as part of its Special Year on Logic and Algorithms. Further information about the Federated Logic Conference may be found on the World Wide Web at the URL: http://www.research.att.com/lics/FLoC/.

- An International Research Symposium on Nonstandard Analysis and its Applications will be held August 11–17, 1996, in Edinburgh, Scotland. The organizers are N. J. Cutland

(Hull), Director, L. Arkeryd (Goteborg), and C. W. Henson (Illinois). This conference will be hosted by the International Centre for Mathematical Sciences (ICMS) at the University of Edinburgh. Invited speakers and contributed talks will report on recent developments in Nonstandard Analysis and its Applications. Further information may be obtained from: ICMS, 14 India Street, Edinburgh, EH3 6EZ Scotland; email: `icms@maths.ed.ac.uk`; Fax: (+44)-(0)131-220-1053; WWW: `http://www.ma.hw.ac.uk/icms/`.

- The Annual Conference of the European Association for Computer Science Logic (CSL '96) will be held September 21–27, 1996, in Utrecht, The Netherlands. During September 21–22 a tutorial on applications of categorical logic to computer science (concurrency) will be organized by I. Moerdijk. A program of invited lectures and contributed papers will be held September 23–27. The deadline for submission of contributed papers is May 1, 1996. Further informaton may be obtained from the Program Chair, Professor D. van Dalen, Department of Philosophy, Utrecht University, 3584 CS Utrecht, The Netherlands; email: `csl96@phil.ruu.nl`; telephone: +31 30 253 1831; Fax: +31 30 253 2816.

- Information about the Logic Courseware Turing's World, Tarski's World, and Hyperproof is now available on the World Wide Web at the URL: `http://csli-www.stanford.edu/hp/`. Authors of this software are Jon Barwise (`barwise@indiana.edu`) and John Etchemendy (`etch@csli.stanford.edu`). Turing's World allows the user to build finite state machines and nondeterministic machines, in addition to Turing machines. Tarski's World is available either alone or as part of a logic textbook/software package. Hyperproof is a proof system that allows the user to reason using both sentences of first-order logic and blocks-world diagrams similar to those used in Tarski's World.

- The Bulletin of the Interest Group in Pure and Applied Logics is published several times per year by the Max Planck Institut für Informatik, Saarbrücken, and Imperial College, London. It is available as an electronic journal as well as in paper form, and submissions are welcome. The Editor-in-Chief is Dov Gabbay; the Executive Editors are Ruy de Queiroz and Hans Jürgen Ohlbach; the Editorial Board consists of Jon Barwise, Wilfrid Hodges, Hans Kamp, Robert Kowalski, Grigori Mints, Ewa Orlowska, Amir Pnueli, Vaughan Pratt, and Johan van Benthem. The latest issue is available by anonymous ftp at `theory.doc.ic.ac.uk` in directory `theory/forum/igpl/Bulletin/V3-1` in the binary file `V3-1-whole.ps.gz`. It may also be obtained on the World Wide Web at the URL: `http://www.mpi-sb.de/igpl/Bulletin`.

- The Bibliography in Finite Model Theory (see the Notices pages in the March, 1995, *Bulletin*) has been moved to the University of Wisconsin at Madison and combined with another bibliography which is maintained there. The bibliography can be reached on the World Wide Web at the URL: `http://math.wisc.edu/~quesada/refs/index.html`. For further information contact: A. Arratia-Quesada, University of Wisconsin at Madison, Department of Mathematics, 480 Lincoln Drive, Madison, Wisconsin 53706; Fax: 608-263-8891; email: `quesada@math.wisc.edu`; WWW: `http://math.wisc.edu/~quesada`.

- The archive of papers of the Kurt Gödel Society has been established to make available abstracts of papers in the fields of mathematics, logic, philosophy, physics, and the history of logic and mathematics. The archive will be available on the World Wide Web at the URL: `http://logic.tuwien.ac.at/kgs/home.html`. This server also gives information about the Society, which may also be contacted by email at the address `kgs@csdec1.tuwien.ac.at`.