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NOTICES

- IN MEMORIAM: RUTH BARCAN MARCUS. Ruth Barcan Marcus died on February 19, 2012, at her home in New Haven after a long and typically gritty battle with cancer. She had celebrated her 90th birthday the previous August 2nd at the Marcus family home in Connecticut with her children and with messages from her many friends and admirers around the world.

Professor Marcus received a B.A. in Philosophy and Mathematics in 1941 from NYU. She often recalled her private tutorial there with J.C.C. McKinsey. They met in a local cafeteria, and McKinsey provided her with his translation of bits of Hilbert and Bernays, *Grundlagen der Mathematik*, along with supplementary exercises he had devised. It was McKinsey who steered her towards modal logic. In 1941 she entered the graduate philosophy program at Yale, where she wrote a dissertation under the direction of Frederic B. Fitch, obtaining her Ph.D. in 1946.

Her dissertation, as well as a series of three papers in 1946-7, published in the JSL under the name "Ruth C. Barcan", are on the subject of quantified first- and second-order modal logic. The papers simply set up and investigate certain formal theories entirely without comment on the intuitive notion of logical necessity, and thus simply ignore what were then the orthodox arguments that quantifiers and the modal operators, necessarily and possibly, don't mix. But many of her subsequent papers concerning logic take up the conceptual issues surrounding the mix, including the issue of the *Barcan formula*, which asserts that 'possibly exists' strictly implies 'exists possibly' and which sits innocently, without comment, as an axiom in the first of her papers. Many of her philosophical papers are collected in a volume *Modalities*, published by Oxford University Press in 1993. It should be said that much of the debate over quantified modal logic preceded the advent of the neutral framework of Kripke semantics and failed to distinguish entirely questions of coherence from questions of the preferred meaning of 'necessity'.

Ruth had married Jules Marcus, a fellow graduate student at Yale, and they settled in the Chicago area in 1946. Jules joined the faculty of the Physics Department at Northwestern, where he remained until retirement. Ruth had a postdoc at the University of Chicago, where she took part in a seminar run by Rudolph Carnap. Carnap was another heretic on the subject of the mix, but with a somewhat different conception of it from Ruth's. Unfortunately, no record seems to remain of their discussions. In the years following, Ruth continued her work on the conceptual foundations of modal logic while doing some part-time teaching and beginning to raise a family. In the mid-1960's, she was given the task of building a philosophy department at the new Chicago branch of the University of Illinois, UIC. With all of the turnover between that time and this, the department still remains strong and exhibits the qualities of collegiality, openness, and cooperativeness among the faculty and students that she put in place. For those who were with her there then it would be hard to forget what she gave us. Ruth moved to Northwestern in 1970 and in 1973 to Yale, where she remained as professor emerita and senior research scholar after her retirement in 1991. In each of the years 1992-97 she was also a visiting distinguished professor at the University of California, Irvine, for one quarter each year.

Ruth served in a large number of executive, administrative, and advisory positions in academia. In particular she was president of the ASL in 1983–86. Her vice president, Yiannis Moschovakis, wrote that she made him work harder than any previous vice president had ever worked. He also wrote, "The late night discussions after the first and before the second Council sessions during ASL meetings are also very memorable, both because of the clarity of her analysis of our problems and also for the copious drinking which accompanied them; she could outdrink us all, while staying fully in charge. She was, by far, the most effective boss I have ever had, and also the most charming. I learned a great deal from her style of leadership; I also became very fond of her during those years."

A woman in graduate school in philosophy in the 1940's was in an alien world; a woman entering the field of logic then was even more so: there were eleven women, including Ruth, out of (roughly counted) 209 members of ASL in 1946. Ruth's efforts to gain respect, recognition—and a job—extended, once she had succeeded, to a life-long support of women in philosophy in general. It was no accident that the first two Ph.D.'s in Philosophy at UIC were women: Nancy Cartwright and Vivian Weil.

Ruth could be fierce: from friend or foe she did not take disagreement lightly. But for the many who benefitted from her friendship, wisdom, warmth, and sturdy support, she earned our respect and love.

- In Memoriam: Alan Woods. Alan Robert Woods died unexpectedly in Perth in mid-December 2011. He was born on June 21, 1953 in Brisbane. He received his B.Sc. (Honours, 1st class) in Mathematics from the University of Queensland (1971-1974), completed his M.Sc. at Monash University in 1978, and his Ph.D. in mathematics at the University of Manchester (1978-1981). His thesis, "Some problems in logic and number theory, and their connections", was completed under the supervision of Jeff Paris while holding a Bishop Harvey Goodwin Mathematical Scholarship.

He had academic appointments at the University of Malaya as Lecturer (1982-85), and at Yale University as Assistant Professor and Fellow of Saybrook College (1985-89). In 1990 he went to the University of Western Australia (UWA) where he was Lecturer (1990-93), Honorary Research Fellow (1994-2002), and Adjunct Associate Professor (2003-2011). He also held visiting positions at Rutgers University (1989), the Institute for Advanced Study, Princeton (2000), Université de Versailles Saint-Quentin-en-Yvelines, (2003), Mathematisches Forschungsinstitut Oberwolfach (2003), and Ghent University (2010).

Alan was regularly invited to workshops and conferences all over the world. He was an invited speaker at the Logic Colloquium '84, at the Ninth International Congress on Logic, Methodology and Philosophy of Science, Model Theory and Set Theory Section, and invited special session speaker at the Logic Colloquium '04, as well as at more than twenty other conferences/workshops. He supervised the Ph.D. thesis of J.M. Foy (Yale University), the M.Sc. thesis of K. Fergusson (University of Western Australia), and was alternate supervisor of the Ph.D. thesis of T.N. French (University of Western Australia). Moreover his work inspired several Ph.D. theses. In France, Alan's results and conjectures stimulated many theses and work of colleagues in Paris and Clermont-Ferrand, for instance on rudimentary predicates (M. More, A. Esbelin), on theories with addition and a primeness predicate (P. Cegielski, M. Vsemirnov), and on definablility and decidability (A. Bes).

His scientific work was spread over mathematical logic (finite model theory, limit laws, bounded arithmetic, and non-standard models) and computational complexity (of proofs, propositional formulas and circuits). More generally he was interested in the connections of logic and computational complexity with algebra, combinatorics and number theory. His name is attached to the Erdös-Woods conjecture (There exists a k such that every natural number x is determined uniquely by the sequence of sets $S_0, \ldots, S_k$ of (distinct) prime numbers given by $S_i = \{p \mid p \text{ divides } x + i\}$) which emerged from his Ph.D. studies. He had deep mathematical insight and distinctive taste, and although he published only a fraction of his results, these had significant impact and will have lasting importance. His collaborators, which include distinguished researchers such as C.G. Jockusch, J. Krajíček, A. Maciel, J.B. Paris, P. Pudlak, T. Pitassi, A. Wilkie, and others, remember him as a hardworking mathematician who was truly an expert in his fields, but someone who was modest and unpretentious.

Many of his colleagues and students have said that a friendship with Alan often did not need many words or constant contact. In case of serious need or expertise, he was always available, interested and willing to offer advice and his quiet wisdom.

Alan was a nature-lover, bush walker, free thinker, and amateur radio enthusiast, and was president of the West Australian VHF Group Inc. from 1997-2005. His death is a tragic loss for his family, his friends, his colleagues at UWA, his collaborators, and logic in general.

Honoring Alan, the conference, *Thirty-first weak arithmetic days* (see `http://www.math.aegean.gr/jaf31/Woods.html`), was held on May 30–June 1, 2012 in Samos, Greece. A conference proceedings is currently in preparation.

- The 2012 ASL Election. At the end of this year the ASL will elect a President and Vice President, three members of the Executive Committee of the Council, and two members of the Council. All terms (except that to complete an Executive Committee term whose current holder has been nominated for vice president) are for three years beginning January 1, 2013. The ballot was sent to all ASL members in mid-November. The 2012 Nominating Committee has nominated Alasdair Urquhart (Toronto) as President, Ulrich Kohlenbach (Darmstadt) as Vice President, Jeremy Avigad (Carnegie Mellon) and Anand Pillay (Leeds) for three-year Executive Committee positions, Roman Kossak (CUNY) for a one-year Executive Committee position (to complete the remaining year of Kohlenbach's EC term), and Joel Hamkins (CUNY) and Kazuyuki Tanaka (Sendai) for the Council positions. The Nominating Committee consisted of Michael Benedikt, Penelope Maddy, David Marker (Chair), Yiannis Moschovakis, Richard Shore, Andreas Weiermann, Philip Welch, and Carol Wood.
- Call for Proposals: 2014 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 Baltimore, January 15–18, 2014. Proposals or requests for further information should be sent to the Committee Chair, Matt Valeriote (email: `matt@math.mcmaster.ca`). The deadline for receipt of proposals is January 7, 2013.
- 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`.
- 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 or lapsed members from countries classified as developing economies. The list `http://www.aslonline.org/worldbankeconomies.html` includes Brazil, Bulgaria, China, Colombia, India, Iran, Russia, 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.
- Reduced Dues for Individuals and Institutions in Developing Economies. The ASL offers reduced dues for individual and institutional members in developing economies. For 2013, 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 residing 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 further information, visit `http://www.aslonline.org/membership_outreach.html` or contact the ASL Business Office: ASL,

Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604, USA; Tel: 1-845-437-7080; Fax: 1-845-437-7830; email: `asl@vassar.edu`.

- Student Travel Awards: The 2013 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 2013 ASL North American Annual Meeting in Waterloo, Ontario, Canada (the announcement for travel award applications for the 2013 European Summer Meeting will be made shortly). 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 on a US flag carrier. Application by email is encouraged; put "ASL travel application" in the subject line of your message.

  For the 2013 ASL North American Annual Meeting, applications and recommendations should be received before the deadline of March 4, 2013, by the Program Chair: Ilijas Farah, Department of Mathematics & Statistics, York University, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3; Fax: 416-736-5757; email: `ilijasf@gmail.com`. Applications by email are preferred.

  For ASL student member travel grants to ASL or ASL-sponsored meetings (other than the 2013 North American Annual Meeting and the 2013 European Summer Meeting), applications and recommendations should be received at least three months prior to 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.

- 2012-13 ASL Winter Meeting (with Joint Mathematics Meetings). *January* 11–12, 2013, *San Diego*, *California*. This meeting will take place in conjunction with the Joint Mathematics Meetings. The invited speakers include: B. Hart, P. Hieronymi, P. Koellner, C. McLarty, J. Moore, I. Neeman, and C. Rosendal. The members of the Program Committee are M. Aschenbrenner, K. Easwaran, and M. Zeman (Chair).

- 2013 ASL Winter Meeting (with APA). *February* 20–23, 2013, *New Orleans*, *Louisiana*. This meeting will be held jointly with the Annual Meeting of the Central Division of the American Philosophical Association. The members of the Program Committee are A. Arana (Chair) and A. Yap.

- 2013 ASL North American Annual Meeting. *May* 8–*May* 11, 2013, *Waterloo*, *Ontario*, *Canada*. The invited speakers include: M. Aschenbrenner, U. Andrews, R. Blute, D. Kerr, C. McLarty, D. Sinapova, T. Slaman, M. Viale, V. Voevodsky, and F. Wagner. The following special sessions also are planned: Applications of logic to operator algebras, Computable structures/model theory, Differential categories and differential lambda calculi, Model theory, Set theory, and Univalent foundations. The members of the Program Committee are: S. Awodey, I. Farah (Chair), A. Kanamori, R. Moosa, J. Reimann, and P. Scott. The Local

Organizing Committee includes: S. Ben-David, B. Csima (Chair), D. DeVidi, R. Moosa, and R. Willard.

Abstracts of 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 February 11, 2013, 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 the website `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 submitting them. Revised abstracts that follow the rules will be considered if they are received by the announced deadline.

- Fifth Indian Conference on Logic and its Applications (ICLA 2013). *January* 10–12, 2013, *Chennai*, *India*. The invited speakers for this event, to be held at the Institute of Mathematical Sciences, include: M. Džamonja, J. Halpern, A. Kurucz, M. Otto, M. Reynolds, A. Rini, and G. Sandu. The Chair of the Program Committee is K. Lodaya and the Chair of the Organizing Committee is R. Ramanujam. The conference is co-located with the Fourteenth International Conference on Theoretical Aspects of Rationality and Knowledge (TARK), which will be held January 7–9, 2013 at the same venue. (For more information about TARK, visit `http://www.imsc.res.in/tark`.) For further information, visit `http://www.imsc.res.in/~icla/`. (ASL Sponsored Meeting.)

- Descriptive Set Theory and Model Theory. *January* 1–4, 2013, *Kolkata*, *India*. The invited speakers at this event at the Indian Statistical Institute include: I. Ben Yaacov, C. Conley, L. van den Dries, E. Hrushovski, M. Magidor, D. Marker, J. Melleray, B. Miller, A. Pillay, T. Scanlon, S. Solecki, S. Thomas, A. Tornquist, T. Tsankov, and B. Weiss. The Convenor of the Organizing Committee is S.M. Srivastava. A preparatory workshop will be held Dec. 27–31, 2012. For further information, visit `http://www.isical.ac.in/~dst.model/index.htm`.

- Thirtieth International Symposium on Theoretical Aspects of Computer Science (STACS 2013) *February* 27–*March* 2, 2013, *Kiel*, *Germany*. Topics typically include: Algorithms and data structures, Automata and formal languages, Computational and structural complexity, Logic in computer science, and current challenges such as biological computing, quantum computing, and mobile and net computing. The invited speakers include K. Etessami, K. Mehlhorn, and S. Thomassé. D. Marx will offer a tutorial on *Algorithmic graph structure theory*. The Co-chairs of the Program Committee are N. Portier and T. Wilke. For more information, visit `http://www.stacs2013.uni-kiel.de`.

- 2012 CAV Award. The 2012 CAV (Computer-Aided Verification) Award was presented at the Twenty-fourth annual CAV conference (see `http://cav12.cs.illinois.edu/`) to S. Owre, J. Rushby, and N. Shankar of SRI International. The annual award, which recognizes a specific fundamental contribution or a series of outstanding contributions to the CAV field includes a $10,000 award. The award was presented with the citation: "for developing PVS (Prototype Verification System) which, due to its early emphasis on integrated decision procedures and user friendliness, significantly accelerated the application of proof assistants to real-world verification problems."

- 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.