

## IAU京都総会のプログラムと ポスターについて

これまでの天文月報の記事から IAU 京都総会のどの Symposium (シンポ), Joint Discussion (JD), Special session に興味があるか決まっただろうか。その中の自分の登場したいところに申し込みをしよう。題名と連絡先, シンポの場合にはそのプログラムの中身の要約を後ろに付けたので, 申し込む決心がついたら, 連絡先に電子メールを送ることから始まる。もちろん郵便でもいいわけだけれど, 電子メールを強く勧める。口頭講演のプログラムはほぼできているために, これからの申し込みはポスターになることが考えられる。では, ポスター発表について少しコメントしておこう。

ポスターの利点は展示期間が長く, 他の人がいつでもそれぞれの都合で見ることができる点にある。宣伝と言う立場から考えると, 口頭発表とポスターとは一長一短があるわけだ。京都総会では, ポスターに多くの人が必然的に集まるように計画されていることを強調しておく。つまり, ポスター会場にはメールボックス, 電子メール端末, 企業などの展示があり, 参加者はまずこの会場に足を運ぶようになっている。コーヒーサービスがポスター会場にあるのも当然だ。ビデオセッションもここで行われる。したがって, ポスター発表が重要視されていると言うことは間違いない。

次に, ポスター発表については参加者の便宜のためあって, 「場所はあれども姿は見えず」と言う形態は排除する方針だ。つまり, まずは連絡先に申し込みをした後, 各シンポや JD の組織委員会で選別がなされ, 6月15日までに登録手続きを完了しないものはポスター発表できないようにする。ポスター発表するためには以下の手続きが必要である。

- 1) 2月15日までに各シンポや JD に 200 語以内のアブストラクトを送って申し込みをする。受け付けられた場合には (まずは大丈夫と思うが)
- 2) 6月15日までに登録手続きを済ませる。4月30日までに登録手続きをすれば早割り料金となることも大事な点だ。

ポスターのアブストラクトは, ぜひ電子メールで送るようにして頂きたい。その書式は WWW を通して入手できる。

<http://www.tenmon.or.jp/iau97/ib78/presentations.html#posters> まで行って, [a template available on the WWW page] をクリックすればいい。注意点は, アブストラクトを LaTeX 形式とプレーンテキストの2種類で送って頂きたいと言うことである。当然, 内容は同じですよ。これは, 集計する側の都合ではあるが, 参加される方のアブストラクト集を作るためにできるだけ最終登録日を後にしているからでもある。

ユメユメ, 登録手続きをお忘れにならないように。6月15日までに登録手続きがない場合には, ポスター会場での掲示場所は割り当てないし, 既に送ったアブストラクトも集録に載らない。初めて見る有名人を捕まえて話をするにはかなりの勇気が必要だが, 自分のポスターがあれば, 世界の有名人を議論に引き込むこともやさしい。ぜひ, 指定の期限までに手続きをするようお願いする。

## SYMPOSIA

**S 183 COSMOLOGICAL PARAMETERS AND EVOLUTION OF THE UNIVERSE**

連絡先: 佐藤勝彦, 東大, 理, 物理, TEL 03 3812 2111, FAX: 03 5689 0465, E-Mail: sato@phys.s.u-tokyo.ac.jp

**Session I:** Measurements of Hubble's constant, Galaxy counts and radio source counts, Gravitational (weak) lensing by clusters

**Session II:** Workshop on Large Scale Observations of Discrete Sources.

**Session III:** Stellar and galactic ages, IGM and Gunn-Peterson effect, Density of hot gas in clusters, Anisotropies of MBR, Future studies of MBR, Observational constraints on models of large scale structure

**Session IV:** Workshop on Dark Matter and Structure Formation.

**Session V:** Objects of large redshifts, Redshift surveys, Constraints on parameters of standard models, The cosmological constant, Alternative cosmologies **Session VI:** Workshop on Cosmological Models.

**Session VII:** Summary Talks: One on theoretical aspects and one on the observational issues. Panel Discussion on The Standard Cosmology: Strengths, weaknesses and alternatives.

**S 184 THE CENTRAL REGIONS OF THE GALAXY AND GALAXIES**

連絡先: 祖父江義明, 東大, 理, 天文学教育研究センター, TEL: 0422 34 3734, FAX: 0422 34 3749, E-Mail: sofue@mtk.iaa.s.u-tokyo.ac.jp or iau184@mtk.iaa.s.u-tokyo.ac.jp

**Session 1 & 2:** Star Clusters and Star Formation Galactic Center star clusters, Nuclear star clusters in galaxies, Evolution and dynamics of dense star clusters, Galactic bulges: Structure and evolution, Star formation, Starbursts

**Session 3 & 4 & 5:** Nuclear Interstellar Medium Neutral ISM in the Galactic Center, Molecular gas in nuclei of galaxies, Evolution of nuclear gas, Rotation and kinematics of the nuclear gas disks, Gas dynamics in the central pc to kpc, Bars and shocks, Angular momentum and accretion, Magnetic phenomena, High-energy phenomena, Outflow and circulation

**Session 6 & 7:** Black Holes and Central Activity Black holes in galaxies, The case for a black hole in the Milky Way center, Circum-nuclear mass distribution and kinematics, Formation and evolution of black holes, Black hole powering of central activity

**S 185 NEW EYES TO SEE INSIDE THE SUN AND STARS. PUSHING THE LIMITS OF HELIO- AND ASTEROSEISMOLOGY WITH NEW OBSERVATIONS FROM GROUND AND FROM SPACE**

連絡先: Prof. Franz-Ludwig Deubner, Astronomisches Institut der University Wuzburg, Am Hubland, D 97074 Wuzburg, Germany, TEL: 49 931 888 5031, FAX: 49 931 888 4603, E-Mail: deubner@astro.uni-wuerzburg.de Global Structure and Evolution of the Solar and Stellar Interior

**Session 1:** Keynote talk - New Developments in Helioseismology, What data are needed to see inside the Sun and stars?, Data analysis strategies, Internal rotation, mixing, and the lithium-abundance

**Session 2:** Solar convection zone and radius, Stellar convective cores, Solar irradiance variations, Solar irradiance (theory) Large Scale Structure of the Sun

**Session 3:** Inversion methods, Inversion of solar structure, Internal

rotation and large scale flows Asteroseismology

**Session 4 & 5:** Keynote talk - New Developments in Asteroseismology Time-distance analysis, Magnetoseismology, Sunspot seismology, Interaction of convection and oscillations, Excitation and damping of solar oscillations, Theoretical aspects in asteroseismology, White Dwarfs and pre-White Dwarfs - observations, White Dwarfs - theory, roAp stars - observations roAp stars - theory, Detection and/or attempted detection of solar-type oscillations

**Session 6:**  $\delta$  Scuti stars - observations,  $\delta$  Scuti stars - theory, Discovery of g-mode pulsations in  $\gamma$  Dor stars, B Star pulsation - observational evidence, B Star pulsation - theory and seismological prospects, Observations of 72 beat Cepheids discovered with MACHO, EC14026 stars - pulsating hot subdwarfs, Impact of HIPPARCOS on asteroseismology Solar Atmosphere, and Synthesis of the Symposium

**Session 7:** CO-diagnostics and the temperature structure of the atmosphere, High frequency (pseudo-) modes, Phase relations of line shifts and intensity fluctuations, The New Chromosphere - simulations, Meeting Summary: Synthesis of solar-stellar seismology

**S 186 GALAXY INTERACTIONS AT LOW AND HIGH REDSHIFT**

連絡先: D. B. Sanders, Institute for Astronomy, University of Hawaii, 2680 Woodlawn Drive, Honolulu, HI 96822, USA, TEL: 1 808 956 5055, FAX: 1 808 956 9580, E-Mail: sanders@ifa.hawaii.edu

**Session 1:** Introductory remarks, Overview of Interactions at Low-z, Overview of Interactions at High-z, Interacting/Peculiar Galaxies - Past Definitions

**Session 2:** The Local Group ( $z = 0$ ), Formation of the Local Group, Dynamics of the Magellanic system, Nature & fate of the Sagittarius dwarf, Moving groups in the Galactic halo, Kinematics of stellar halos, The M81 group at 21 cm

**Session 3:** Tidal Interactions, Bridges & Tails, Dwarf galaxies in tidal tails, Return of material from tails, Interaction signatures in HI, Extended gas in interacting systems, Rings and embedded disks

**Session 4:** Mergers & Spheroids, Structure of normal ellipticals, Dynamics of merger remnants, Shells, ripples & plumes, Globular clusters in ellipticals, Counter-rotating cores, E+A Galaxies

**Session 5:** Starbursts (Global & Local), Gas Dynamics in Mergers, Molecular gas in starbursts, Evolution of starburst populations, Young clusters in merging galaxies, Evolution of globular cluster systems, X-ray observations of starbursts

**Session 6:** Nuclear Activity, Luminous infrared galaxies, Surveys of QSOs/Hosts, Surveys of radio galaxies, Fueling requirements for AGNs, Molecular gas in AGNs, Superwinds from starburst galaxies, Metal enrichment of the IGM

**Session 7:** Clusters, Butcher-Oemler galaxies, Interactions in distant clusters, ROSAT studies of clusters & groups, ASCA observations of clusters, Cluster & group evolution, Compact Groups

**Session 8:** Deep Fields, Morphology of galaxies in the HDF/MDS, The HDF/MDS - Spectroscopy, Faint Blue Galaxies, Deep/Ultradeep-field observations, The high-z population of galaxies, Interpretation of number counts in Deep Fields

**Session 9:** Galaxy evolution with Redshift, Morphology of field galaxies versus redshift, Molecular Gas at High-z, Theory of Star

Formation & QSO Abs. Lines, Mergers and hierarchical galaxy formation - theory, Mergers and hierarchical galaxy formation - models

**Session 10:** Prospects & Theoretical Perspectives, Interactions activity and galactic evolution, Beyond the HDF -- the NGST

#### S 187 COSMIC CHEMICAL EVOLUTION

連絡先: James W. Truran, Department of Astronomy and Astrophysics, University of Chicago, 5640 S. Ellis Avenue, Chicago, IL 60637, USA, TEL: 1 312 702 9584 (direct) or 1 312 702 2503 (secretary), FAX: 1 312 702 6645, E-Mail: truran@nova.uchicago.edu

**Session 1:** Pre-Galactic Nucleosynthesis, Big-Bang nucleosynthesis, The Nature of a Population III, Galaxy formation

**Session 2:** Stellar Evolution and Nucleosynthesis, Nucleosynthesis in red giant stars, Nucleosynthesis in SNe Ia, Nucleosynthesis in SNe II, Light element synthesis in the galaxy

**Session 3:** Abundances in Stars and Galaxies, Abundances in halo population stars, Abundances in bulge stars, Abundances in the galactic disk, Abundances in nearby galaxies

**Session 4:** Abundances in Cluster Gas and QSO Absorbers, Gas phase abundances in clusters, Abundances in damped Lyman- $\alpha$  systems, Abundances in damped Lyman- $\alpha$  systems

**Session 5:** Galaxy Formation and Evolution, Galaxy formation simulations, Formation of star clusters, Chemical evolution of galaxies, Evolution of galaxy populations

**Session 6:** Galaxies at Significant Redshift, Evolution of the field galaxy population, Evolution of the cluster galaxy population, Galaxy evolution at high redshifts, Stellar population synthesis models

**Session 7:** Cosmic Chemical Evolution, Global approaches to galactic chemical evolution, Evolution of damped Lyman- $\alpha$  galaxies, Summary

#### S 188 THE HOT UNIVERSE

連絡先: 小山勝二, 京大, 理物理, 075 753 3833, FAX: 075 701 5377, E-Mail: koyama@cr.scphys.kyoto-u.ac.jp

Overview of the Hot Universe

**Session 1:** Plasma and Fresh Nucleosynthesis Phenomena 1-1. Sun and stars, Dynamics of solar flares and coronae, Theory of flares and MHD jets, X-ray coronae from stars, New quest for X-rays from young stellar objects 1-2. Novae, supernova remnants and Galactic hot plasma, Atomic abundance in non-equilibrium plasma of SNRs, Shock acceleration in shell-like SNRs, Astrophysical plasma and atomic processes, Hot plasma in the Galaxy, X-ray and  $\gamma$ -ray emissions from supernova explosions,  $^{26}\text{Al}$   $\gamma$ -rays in the Galaxy, Nuclear  $\gamma$ -rays from Orion 1-3. Galaxies and their clusters, Abundance problems in galaxy hot plasmas, Hot gaseous halo in elliptical and spiral galaxies, Hot gas in groups and their galaxies, Spatial distribution of temperature and abundances in clusters, Iron abundance in distant clusters

**Session 2:** Future Space Programs, Recent results from SAX, Status report of ASTRO-E, AXAF, XMM, ABRIXAS, Spectrum X- $\gamma$ , Integral, Visions of high-energy missions beyond the current program

**Session 3:** Diagnostics of High Gravity Objects with X- and Gamma-rays 3-1. White dwarf and neutron star binaries, Mass determination of accreting magnetic white dwarfs with hard X-ray spectroscopy, Photoionized plasmas in high-mass X-ray binaries,

Spectral properties of low-mass X-ray binary systems,  $\gamma$ -ray emission theory of isolated pulsars, Binary structure of accreting neutron stars, X-rays and  $\gamma$ -rays from isolated neutron stars, Millisecond time variations of X-ray binaries, Type I and Type II bursts: New results from GRO J1744-28 3-2. Black hole binaries, Super-Eddington sources and super soft sources, High energy aspects of Galactic black hole candidates, Superluminal sources as observed in Radio X-ray and  $\gamma$ -rays, X-ray spectrum of Cyg X-1 in the high state 3-3. AGNs, Advection-dominated disks, Evidence for strong gravity in the AGN Plasma, X-ray aspects of the IRAS galaxies,  $\gamma$ -rays from AGNs, Extreme high energy emission from astronomical objects and its emission mechanisms, High energy phenomena in AGN jets 3-4.  $\gamma$ -ray bursts,  $\gamma$ -ray burst observation from CGRO, X-ray identifications of  $\gamma$ -ray burst sources,  $\gamma$ -ray burst theory

**Session 4:** Large Scale Hot Plasmas and their Relation with Dark Matter Cooling flows in clusters of galaxies, New aspects of hot gas in galaxy clusters, Structure and evolution of clusters of galaxies, Hierarchical structure of dark matter, Sunyaev-Zel'dovich clusters, Large scale structure in X-rays

### INDIVIDUAL PROGRAMMES

#### JD 1 ABUNDANCE RATIOS IN THE OLDEST STARS

連絡先: Beatriz Barbuy, U. Sao Paulo, CP 9638, Sao Paulo 01065-970, Brazil, TEL: 55 11 5778599 ext.: 230, FAX: 55 11 2763848/55 11 8848550/55 11 5778599, E-Mail: barbuy@vax.iagusp.usp.br or barbuy@atmos.iagusp.usp.br or barbuy@astro1.iagusp.usp.br

#### JD 2 DWARF GALAXIES: PROBES FOR GALAXY FORMATION AND EVOLUTION

連絡先: Elias Brinks, Departamento de Astronomia, Universidad de Guanajuato, Apartado Postal 144, Guanajuato, C.P. 36000, Mexico, TEL: 52 473 27155, FAX: 52 473 25749. Trinh X. Thuan, Department of Astronomy, University of Virginia, Box 3818, Charlottesville, VA 22903, USA, TEL: 1 804 924 4894, FAX: 1 804 924 3104, E-Mail: ebrinks@andromeda.cimat.mx or txt@starburst.astro.virginia.edu

#### JD 3 PRECESSION-NUTATION AND ASTRONOMICAL CONSTANTS FOR THE DAWN OF THE 21st CENTURY

連絡先: V. Dehant, Observatoire Royal de Belgique, Ave. Circulaire 3, B 1180 Bruxelles, Belgium, TEL: 32 2 373 02 66, FAX: 32 2 374 98 22, E-Mail: veroniq@oma.be

#### JD 4 CHALLENGES IN ATOMIC PHYSICS FOR COSMIC X-RAY SPECTROSCOPY

連絡先: Dr. Frits Paerels, Columbia Astrophysics Laboratory, Columbia University, 538 W. 120th St., New York, NY 10027, USA, TEL: 1 212 854 8125, FAX: 1 212 854 8121, E-Mail: frits@naima.phys.columbia.edu

#### JD 5 PRESERVING OF THE ASTRONOMICAL WINDOWS

連絡先: 磯部瑋三, 国立天文台, TEL: 0422 34 3645, FAX: 0422 34 3641, E-Mail: isobesz@cc.nao.ac.jp

#### JD 6 INTERACTIONS BETWEEN PLANETS AND SMALL BODIES

連絡先: Dr. Hans Rickman, Uppsala Astronomical Observatory, Box 515, S 75120 Uppsala, Sweden, TEL: 46 18 51 35 22, FAX: 46 1852 75 83, E-Mail: hans@astro.uu.se

**JD 7 THE NEW INTERNATIONAL CELESTIAL REFERENCE FRAME**

連絡先: Dr. L.V. Morrison, Royal Greenwich Observatory, Madingley Road, Cambridge CB3 0EZ, UK, TEL: 44 1223 374771, FAX: 44 1223 374700, E-Mail: merlp@ast.cam.ac.uk

**JD 8 STELLAR EVOLUTION IN REAL TIME**

連絡先: Dr. Edward F. Guinan, Dept. of Astronomy and Astrophysics, Villanova University, Villanova, PA 19085, USA, TEL: 1 610 519 4823, FAX: 1 610 519 6132 (University) & 1 610 325 9788 (Home), E-Mail: guinan@ucis.vill.edu and Robert Koch e-mail: rhkoch@sas.upenn.edu

**JD 9 FUTURE LARGE SCALE FACILITIES IN ASTRONOMY**

連絡先: Prof. Dr. Harvey Butcher, Netherlands Foundation for Research in Astronomy, P.O. Box 2, NL 7990 AA Dwingeloo, Netherlands, TEL: 31 521 59 5100, FAX: 31 521 59 7332, E-Mail: butcher@nra.nl

**JD 10 LOW-LUMINOSITY STARS**

連絡先: Prof. J.J. Binney, Theoretical Physics, Keble Road, Oxford OX1 3NP, England, TEL: 44 1865 273 979, FAX: 44 1865 273 947, 電子メール: binney@thphys.ox.ac.uk

**JD 11 REDSHIFT SURVEYS IN THE 21ST CENTURY**

連絡先: J. Huchra, OIR, Center for Astrophysics, 60 Garden St, Cambridge, MA 02138-1516, USA, TEL: 1 617 495 7375, FAX: 1 617 495 7467, or A.P. Fairall, Dept. of Astronomy, University of Cape Town, Rondebosch, 7700 South Africa. TEL: 27 21 650 2392, FAX: 27 21 650 3352, E-Mail: huchra@fang.harvard.edu or fairall@uctvms.uct.ac.za.

**JD 12 ELECTRONIC PUBLISHING: NOW AND THE FUTURE**

連絡先: Prof. A. G. Hearn, Sterrekundig Instituut, Postbus 80000, NL 3508 TA Utrecht, The Netherlands, TEL: 31 30 253 5202/253 5200, FAX: 31 30 253 5201, E-Mail: ahearn@fys.ruu.nl

**JD 13 DETECTION AND STUDY OF PLANETS OUTSIDE THE SOLAR SYSTEM**

連絡先: Dr. Alan J. Penny, Rutherford Appleton Laboratory, Chilton, Didcot, Oxon OX11 0QX, UK, TEL: 44 1235 44 5675, FAX: 44 1235 44 6667, E-Mail: a.j.penny@rl.ac.uk

**JD 14 THE FIRST RESULTS OF HIPPARCOS AND TYCHO**

連絡先: Dr. Catherine Turon, Observatoire de Paris-Meudon, F 92195 Meudon Cedex, France, TEL: 33 1 45 07 7837, FAX: 33 1 45 07 7878, E-Mail: catherine.turon@obspm.fr

**JD 15 THE COMBINATION OF THEORY, OBSERVATION, AND SIMULATION FOR THE DYNAMICS OF STARS AND STAR CLUSTERS IN THE GALAXY**

連絡先: Dr. R. Spurzem, Institut für Astronomie und Astrophysik, Universität Kiel, Olshausenstraße 40, D 24098 Kiel, Germany, TEL: 49 431 880 4106 (Office) or 49 431 880 4110 (Institute Secretary), FAX: 49 431 880 4100, E-Mail: supas028@astrophys.uni-kiel.d400.

**JD 16 SPECTROSCOPY WITH LARGE TELESCOPES OF CHEMICALLY PECULIAR STARS**

連絡先: 比田井昌英, 東海大, 文明研究所, TEL: 0463 58 1211 ext. 4813, FAX: 0463 59 4047, E-Mail: hidai@keyaki.cc.utokai.ac.jp

**JD 17 HISTORY OF ORIENTAL ASTRONOMY**

連絡先: Prof. S. M. R. Ansari, c/o Physics Dept. Aligarh Muslim

University, Aligarh 202002, India, TEL: 91 571 40 1952 (res.), FAX: 91 571 40 0105, 40 治治 0848 or 40 治治 0466, Telex: 564 230 AMU IN or Dr. S. J. Dick, US Naval Observatory, Washington, DC 20392-5420, USA, TEL: 1 202 762 1438, FAX: 1 202 762 1461, E-Mail: dick@ariel.usno.navy.mil

**JD 18 HIGH ENERGY TRANSIENTS**

連絡先: Virginia Trimble, Physics Department, University of California, Irvine CA 92696-4575 USA, TEL: 1 714 824 6948 (or 1 301 405 5822), FAX: 1 714 824 2174 (or 1 301 314 9067). E-Mail: vtrimble@uci.edu (or vtrimble@astro.umd.edu)

**JD 19 PHYSICS OF THE SUN AND HELIOSPHERE IN THE ERA OF SPACE PROBES : SCIENTIFIC HIGHLIGHTS OF SOHO, ULYSSES AND YOHKOH**

連絡先: Prof. Oddbjorn Engvold, Institute of Theoretical Astrophysics, University of Oslo, P.O.Box 1029, Blindern, N-0315 Oslo, Norway, TEL: 47 22 85 6521, FAX: 47 22 85 6505, E-Mail: oddbjorn.engvold@astro.uio.no

**JD 20 ENHANCING ASTRONOMICAL RESEARCH AND EDUCATION IN DEVELOPING COUNTRIES**

連絡先: Dr. A. H. Batten, Dominion Astrophysical Observatory, 5071, W. Saanich Rd, Victoria, B.C., Canada V8X 4M6, TEL: 1 250 363 0009, FAX: 1 250 363 0045, E-Mail: batten@dao.nrc.ca

**JD 21 THE MEGAMASER - AGN CONNECTION**

連絡先: Dr. Willem A. Baan, NAIC Arecibo Observatory, P.O. Box 995, Arecibo, PR 00613, USA, TEL: 1 787 878 2612, FAX: 1 787 878 1861, E-Mail: willem@naic.edu

**JD 22 ASTRONOMY FROM THE MOON**

連絡先: Prof. Yervant Terzian, 512 Space Sciences Building, Department of Astronomy, Cornell University, Ithaca, NY 14853, TEL: 607 255 4935, FAX: 607 255 9817, E-Mail: terzian@astro-sun.tn.cornell.edu

**JD 23 THE LEONID METEOR STORMS: HISTORICAL SIGNIFICANCE AND UPCOMING OPPORTUNITIES**

連絡先: Prof. I.P. Williams, Astronomy Unit, Queen Mary & Westfield College, Mile End Rd, London E1 4NS, UK, TEL: 44 171 975 5452, FAX: 44 181 981 9587, E-Mail: I.P.Williams@qmw.ac.uk

**JD 24 PULSATING STARS - RECENT DEVELOPMENTS IN THEORY AND OBSERVATION**

連絡先: 竹内 峯, 東北大理, 天文, TEL: 022 217 6512, FAX: 022 217 6513, E-Mail: takeuti@astr.tohoku.ac.jp

<b>INDIVIDUAL PROGRAMMES: SPECIAL SESSIONS</b>
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**SPS 1 MAIN ISSUE OF THE GALILEO MISSION TO THE JUPITER SYSTEM**

連絡先: Prof. Mikhailil Marov, Keldysh Institute of Applied Mathematics, Moscow 125047, Russia, TEL: 7 095 250 0485, FAX: 7 095 972 0737, E-Mail: marov@applmat.msk.su

**SPS 2 HIGHLIGHTS OF THE ISO MISSION**

連絡先: Dr. Dietrich Lemke, Max-Planck Institute für Astronomie, Kigstuhl 17, D-69117 Heidelberg, Germany, TEL: 49 6221 528259, FAX: 49 6221 528246, E-Mail: lemke@mpia-hd.mpg.de

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