- JENAM 2009
- Европска недеља астрономије и космичких истраживања
- Милан С. Димитријевић,

- VI ERAM 1984 Sun and Planetary System, Дубровник
- XII ERAM, Давос 1990
- II JENAM Torunj 1993, Extragalactic Astronomy and Observational Cosmology
- IV JENAM Catania 1995, Progress in European Astrophysics
- VI JENAM, Solun 1997, New Trends in Astronomy and Astrophysics

- IX JENAM Moskva 2000
- X JENAM Minhen 2001
- XIII JENAM Budimpesta 2003, New deal in European Trends and Perspective
- XIV JENAM Granada 2004, Many Scales on the Universe
- XVII JENAM Hatfield 2009, European week of Astronomy and Space Research

- XVIII JENAM, Лисабон 6-9.09.2010
- XIX JENAM, Сант Петерсбург, почетак јула 2011

Symposia (7)

- The next era in radio astronomy: the pathway to SKA
- The standard cosmological models - successes and challenges
- Understanding substellar populations and atmospheres: from brown dwarfs to exo-planets
- The life cycle of dust
- Multi-wavelength high redshift surveys
- Three decades of gravitational lenses
- The IYA 2009 in Europe
-

Sessions (12)

- Star formation: from massive stars to brown dwarfs
- The Galaxy and its Satellites
- Explosive transients in distant galaxies
- High energy non-thermal astrophysics
- Galaxy clusters and their evolution
- Epoch of reionisation: First light to the earliest galaxies currently known
- Outflows, feedback and the central engines of AGN
- Towards the first detection of gravitational waves
- X-ray astronomy in the next decade
- The Virtual Observatory and distributed computing
- Application of machine learning techniques to astronomical data analysis
- Pro-Am session

ESO sessions (4):

- ALMA: status, science capabilities and the path towards science operations
  - E-ELT: the European Extremely Large Telescope
  - How to use ESO - The life-cycle of an ESO observing program
- Upcoming ESA astrophysics missions

НАШИ НА ЈЕНАМУ

- Анђелка Ковачевић
- Слободан Нинковић
- Јово Врањеш
- Снежана Станимировић
- Катарина Миљковић

The Project of Serbian Virtual Observatory and the connection with VAMDC

Darko Jevremović[1], Milan S. Dimitrijević[1], Luka Č. Popović[1] Miodrag Dačić[1],
Vojislava Protić-Benišek[1], Edi Bon[1], Vladimir Benišek[1], Andjelka Kovačević[2], Sylvie Sahal-Bréchot[3]

[1]Astronomical Observatory Belgrade, Serbia [2] Faculty of Mathematics, Belgrade, Serbia, [3] Observatoire de Paris, France

INTRODUCTION

Main aim is to publish data obtained by Serbian astronomers as well as to provide astronomers in Serbia with VO tools for their research. In the first three years of the project the main goals are:

I digitization and publishing in VO photo-plates from the archive of Astronmical Observatory Belgrade (AOB-SerVO)
II publishing STARK-B (Stark broadening data) in VO compatible format (SerVO-Stark B-VAMDC)
III publishing DSED (stellar evolution database) in VO (SerVO-DSED)

AOB-SerVO

From the mid-thirties till mid-nineties of the last century more than fifteen thousand plates were recorded, processed, analyzed and archived at the Astronomical Observatory Belgrade (AOB).

Main operation of SerVO is to digitize a subset of plates obtained with Zeiss astrograph (Fig.3) and publish it in the VO compatible format.

Fig. 1: Headquarter of Astronomical Observatory Belgrade

Fig. 2 The Dome of the Zeiss 650/10055 mm equatorial

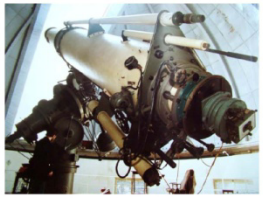
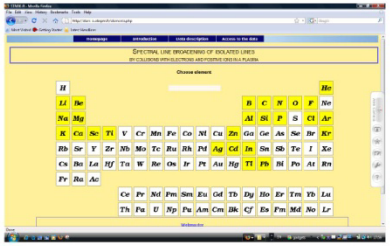


Fig. 3 The Zeiss 650/10055mm equatoriial

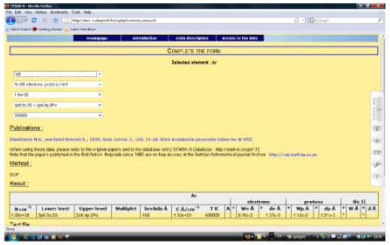
Fig. 4 Scanned photographic plate (from the very early datasets)

SerVO-Stark B-VAMDC

Theory is fairly new addition in the context of Virtual Observatory. The database STARK-B is devoted to modeling and spectroscopic diagnostics of stellar atmospheres, laboratory plasmas, laser equipments, fusion and technological plasmas. The simple graphical interface to the data is provided at URL address:
http://stark-b.obspm.fr/elements.php.
User first chooses the element of interest from the Periodic system of elements:



The ionization stage, perturber density, transition and plasma temperature can be set and page with description of data and table with shifts and widths is generated.

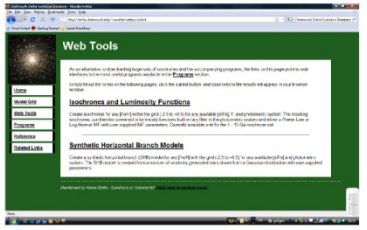


MIrror sites: Meudon MOLAT database, Belgrade SerVO
Also, it is within the FP 7 project of Virtual Atomic and Molecular Data Center (VAMDC) aiming to build a secure, documented, flexible and Interoperable e-science environment-based interface to the existing atomic and molecular data.

SerVO-DSED

D. Jevremović contributed to the development of Dartmouth Stellar Evolution Database (DSED) which has been recently published [1,2].
It consists of evolutionary tracks and isochrones for initial stellar mass from one tenth to four solar masses. They were evolved from pre-main sequence state to either of runaway fusion or 100 Gyrs.

In the context of VO we intend to add an option of 'VO table output' for the whole set of data and host a mirror site at SerVO.



SerVO Data Visualization

Part of our project is also providing the visualization tools for the easier and better access to the data from above databases.
We plan to adopt some of already available tools from VO collection (i.e. for simple statistical analysis) and if necessary build new ones.

Acknowledgments
Supported by grant TR13022, Ministry of Science and Technological Development of Republic of Serbia.

References:

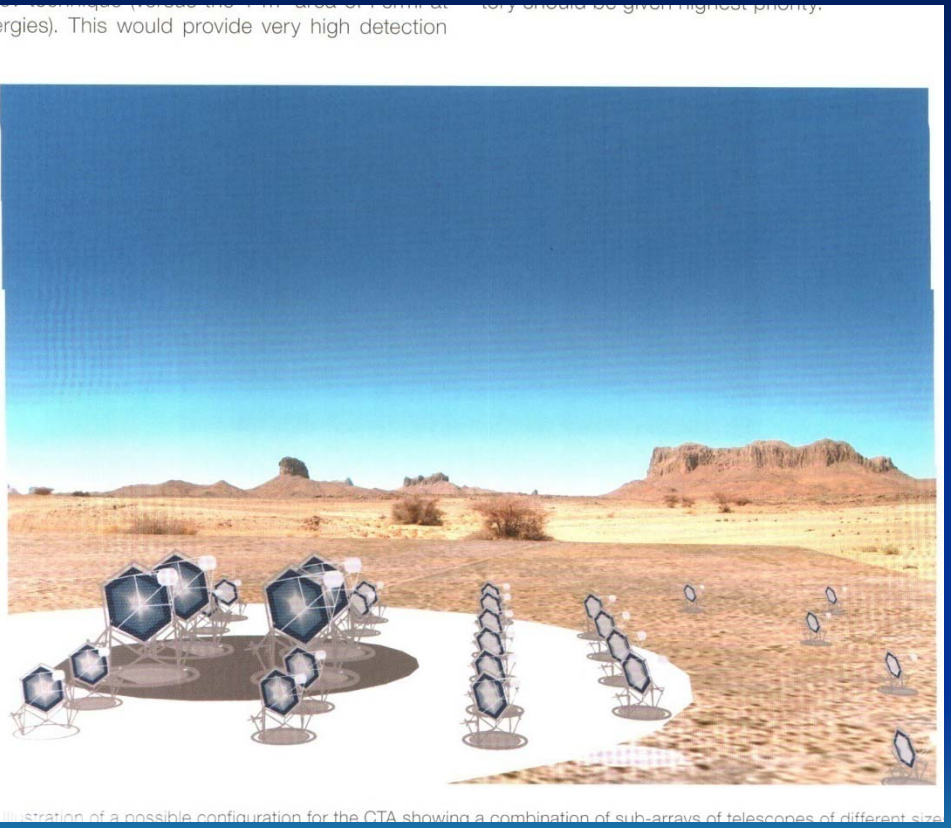
1. Dotter, A. Chaboyer, B.; Jevremović, D.; Baron, E.; Ferguson, J.W.; Sarajedini, A.; Anderson, J.: 2007, The ACS Survey of Galactic Globular Clusters. II. Stellar Evolution Tracks, Isochrones, Luminosity Functions, and Synthetic Horizontal-Branch Models, The Astronomical Journal, Volume 134, Issue 1, pp.376-39
2. Dotter, A.; Chaboyer, B.; Jevremović, D.; Kostov,V.;Baron,E.;Ferguson, J.W.:2008, The Dartmouth Stellar Evolution Database, Astrophysical Journal Supplement Series,178, 89

ASTRONET
www.astronet-eu.org

The ASTRONET Infrastructure Roadmap:

A Strategic Plan for European Astronomy

Cherenkov Telescope Array - 2015



- Гама зраци
- 10-100 ГеВ 3 м
- 100 ГеВ-100 ТеВ 30м. Две опсерваторије

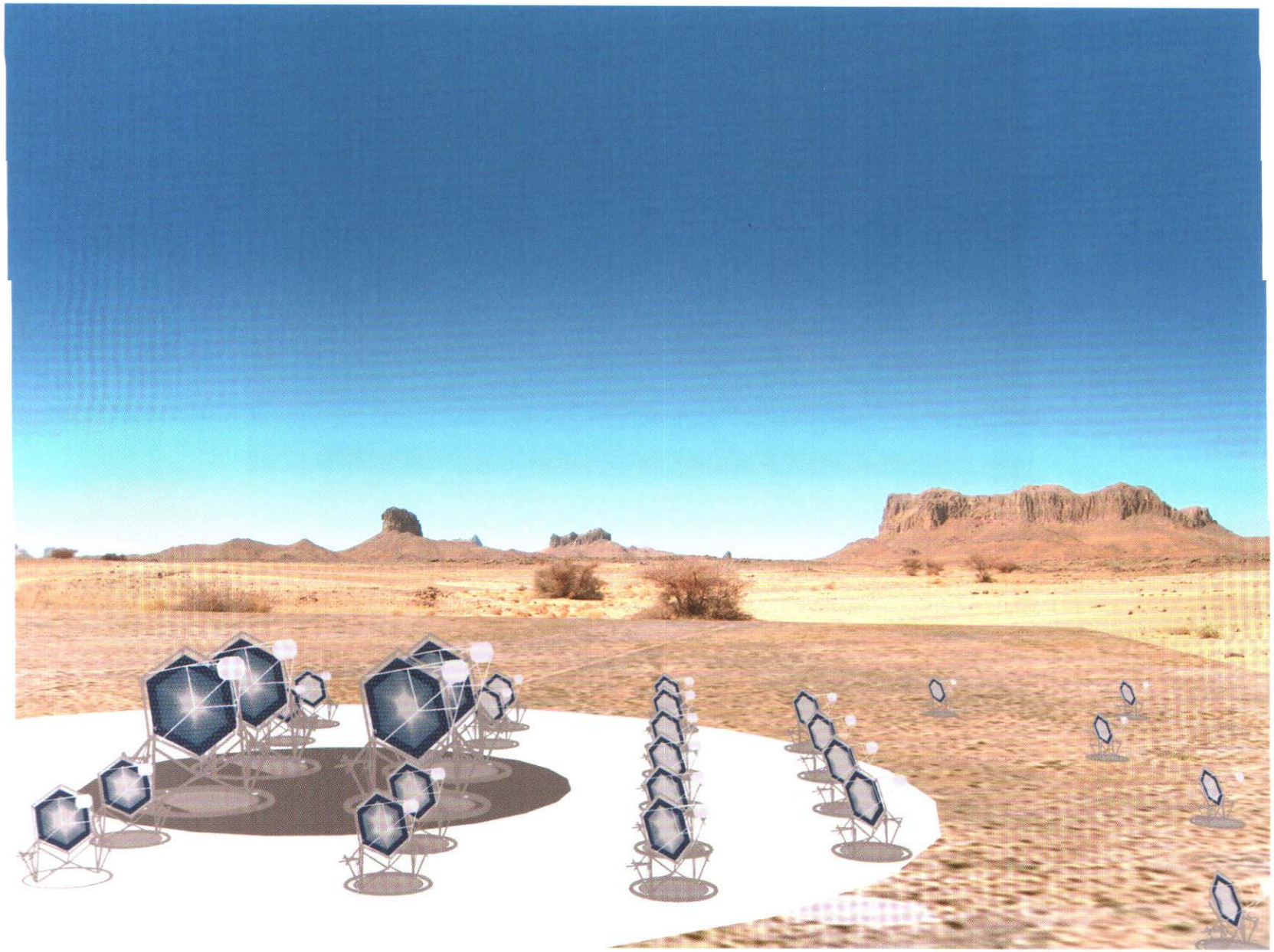
-Хоризонт догађаја

-Механизам ГРБ

-Високоенергетски космички зраци и неутрина

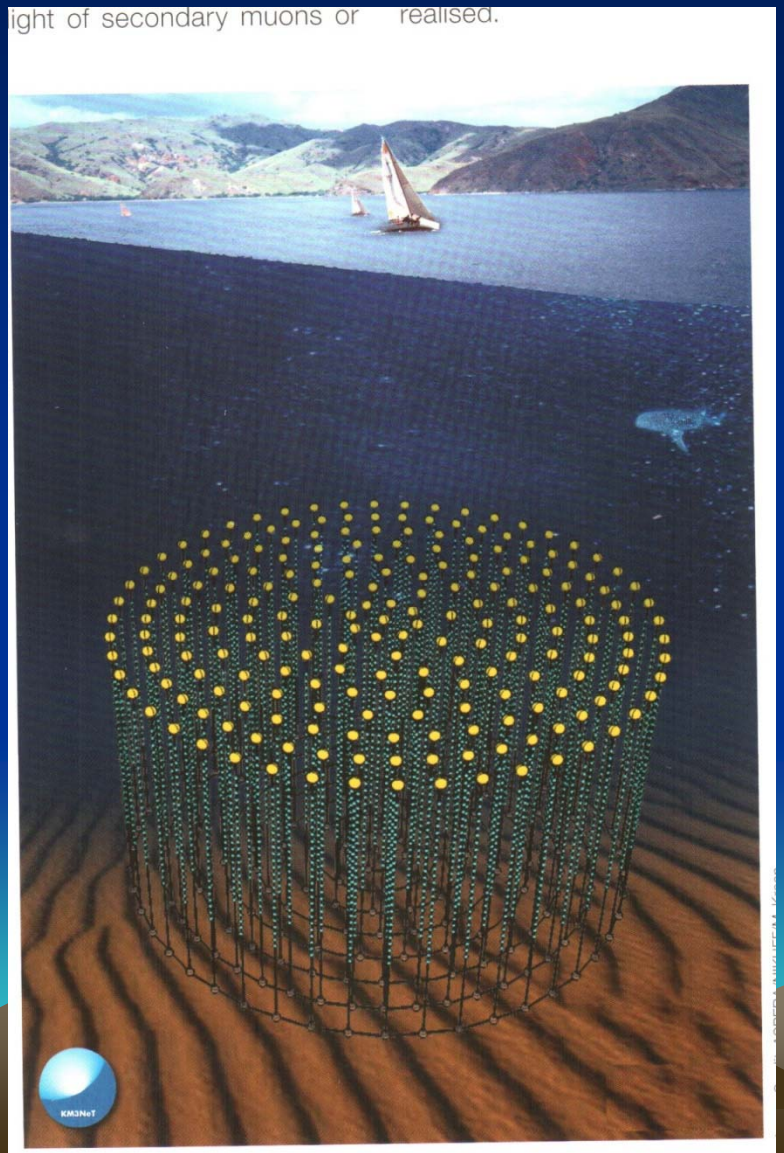
eV energies). This would provide very high detection

tory should be given highest priority.



igure 4: Illustration of a possible configuration for the CTA showing a combination of sub-arrays of telescopes of different size

Km3NeT до 2015



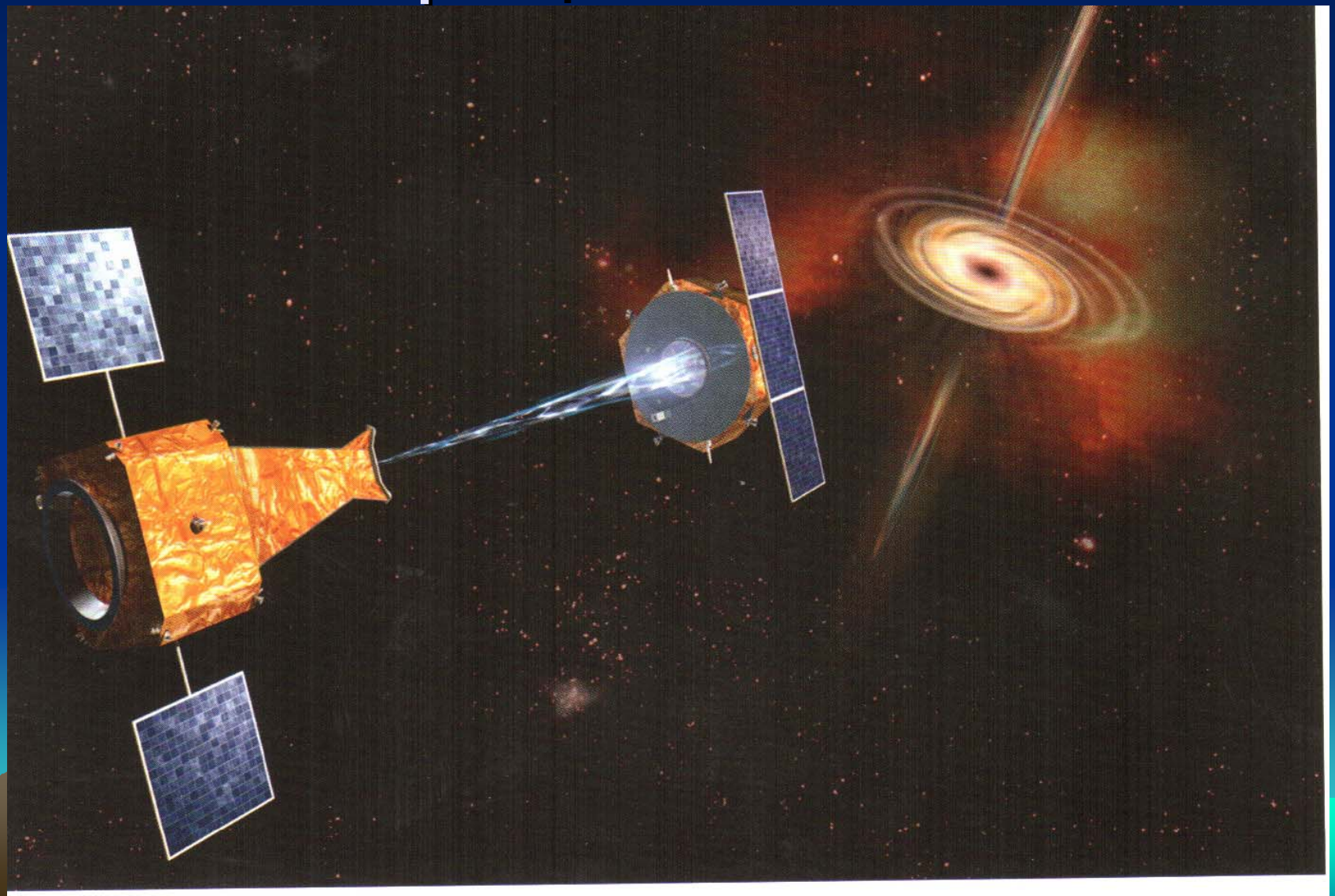
- Подморска неутринска опсерваторија. Детектори Черенковљевог зрачења, секундарних миона и електрона
- На Медитерану и “Коцка леда” на Јужном полу
- АГН и извори ГРБ као извори неутрина; Извори ТеВ неутрина

- -Тест конзистентности теорија о тамној материји и тамној енергији
- -Области близу хоризонта догађаја
- -Функционисање експлозија супернових
- -Механизам ГРБ

-Механизам убрзања космичких зрака

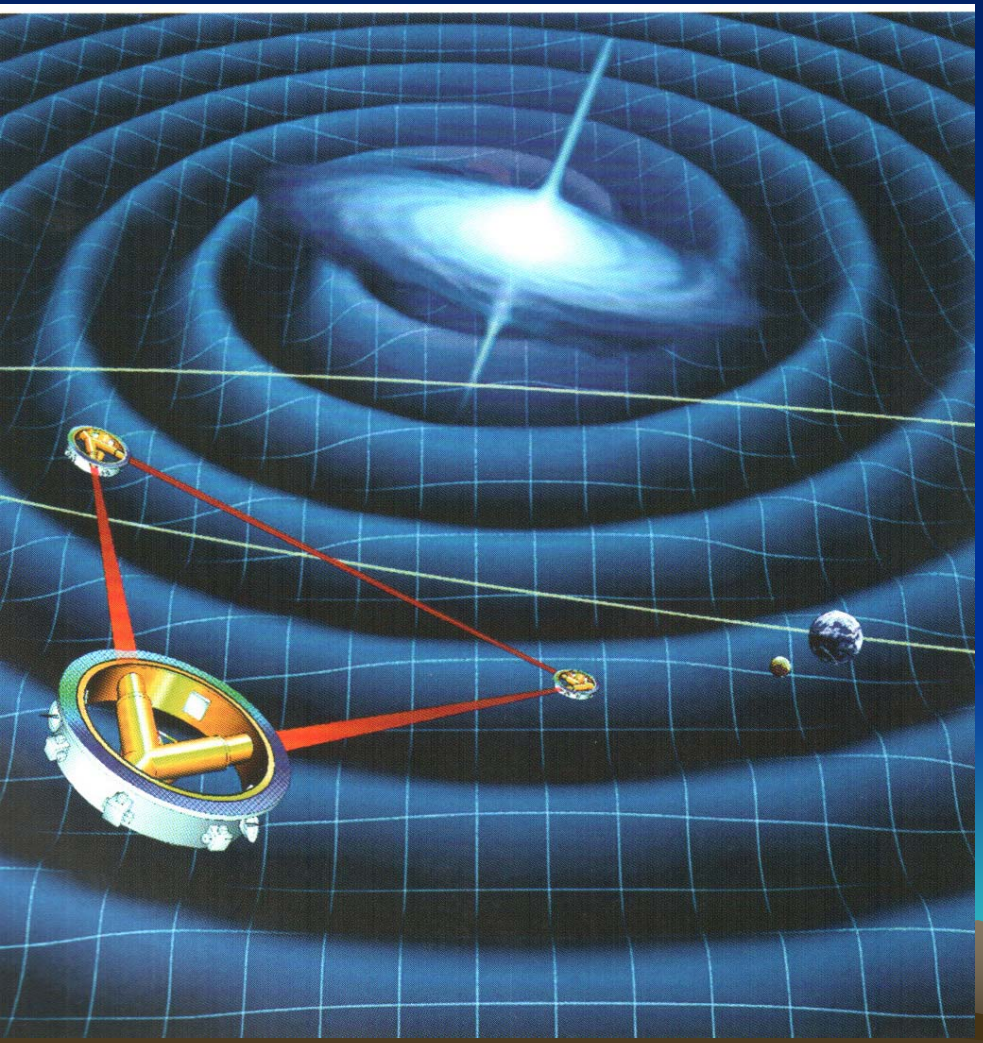
-Високоенергетска неутрина

Симбол X, 2014
X зраци 10-80 кеВ



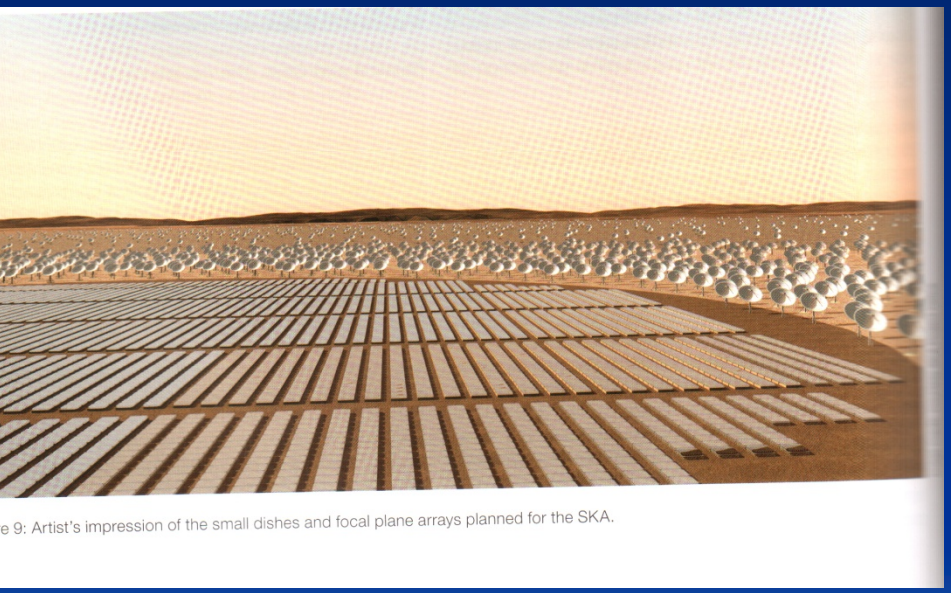
- -Физика црних рупа
- -нуклеосинтеза
- -убрзавање честица
- -функционисање супернових
- -процеси близу хоризонта догађаја
- -ГРБ
- 100-1000 пута већа резолуција од ИНТЕГРАЛа, 20м жижна даљина

LISA – Laser Interferometer Space Antena 2016-2020



- Опсерваторија за гравитационе таласе
- 0.1 мХз-0.1 Хз
- -Откривање више стотина црних рупа
- -Откривање примордијалних црних рупа у Галаксији
- -Природа објеката који су рејонизовали Универзум
- -Разлучити прво семе галаксија
- -Историја формирања галаксија

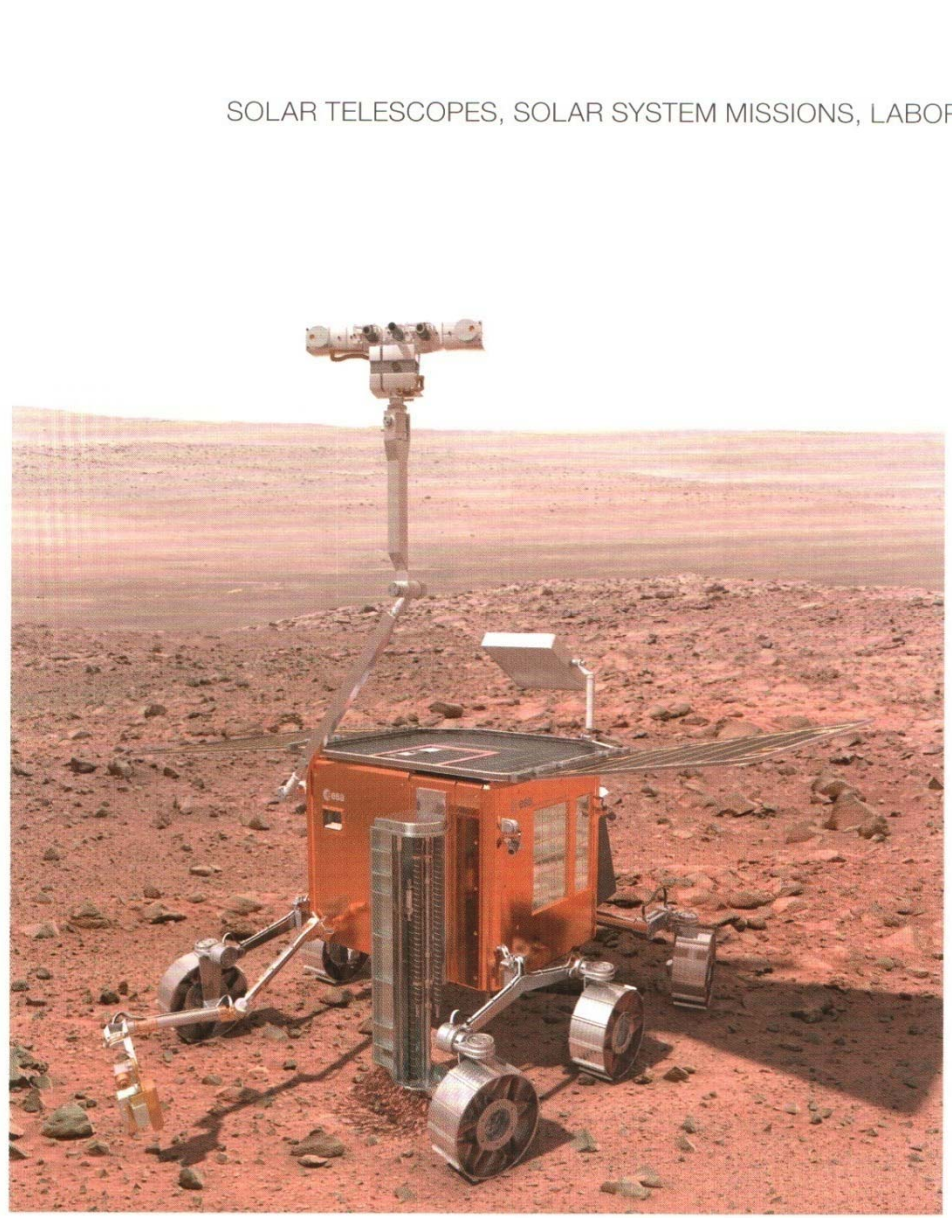
SKA – Square Kilometer Array



e 9: Artist's impression of the small dishes and focal plane arrays planned for the SKA.

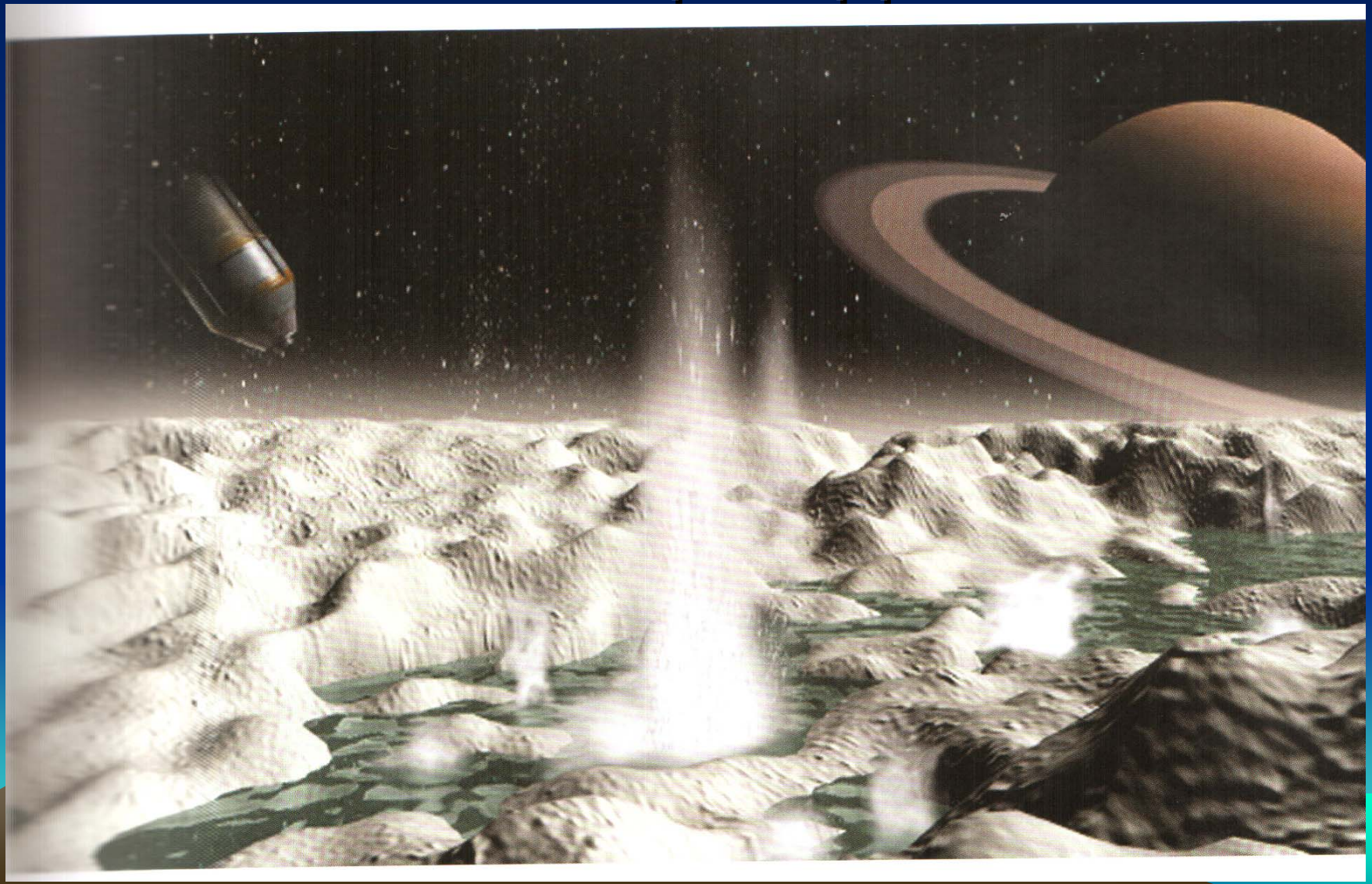
- Радиотелескоп
- -Мапирање емисије водоника
- -6Д слика галаксије
- -међузвездана средина у време епохе рејонизације

EXO Марс око 2015



- Ровер за егзобиолошка истраживања
- -Да ли је живот постојао или постоји на Марсу?

ТАНДЕМ – Мисија на Титан и Енцелад



ЛАПЛАС

Три космичка брода у Јовијанском систему за координисано посматрање

Један у циркумполарној орбити око Европе са лендером и пенетратором

-Унутрашња структура Европе и њен састав

-Да ли постоје услови за живот и да ли постоји или је постојао живот?

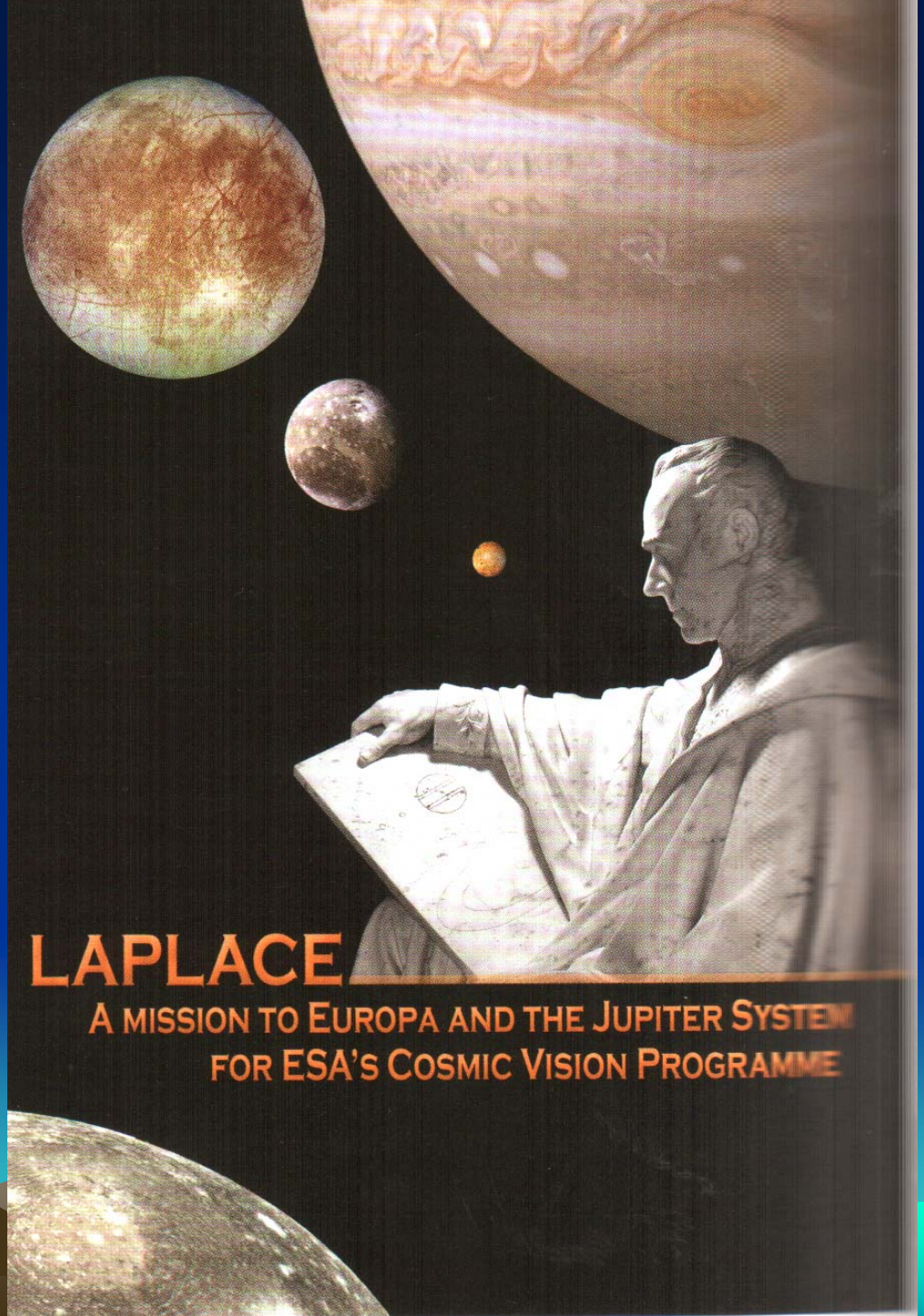


Image Credit: IVOA

ELT-European Large Telescope 42 m, 2016

0.4 – 21 μm

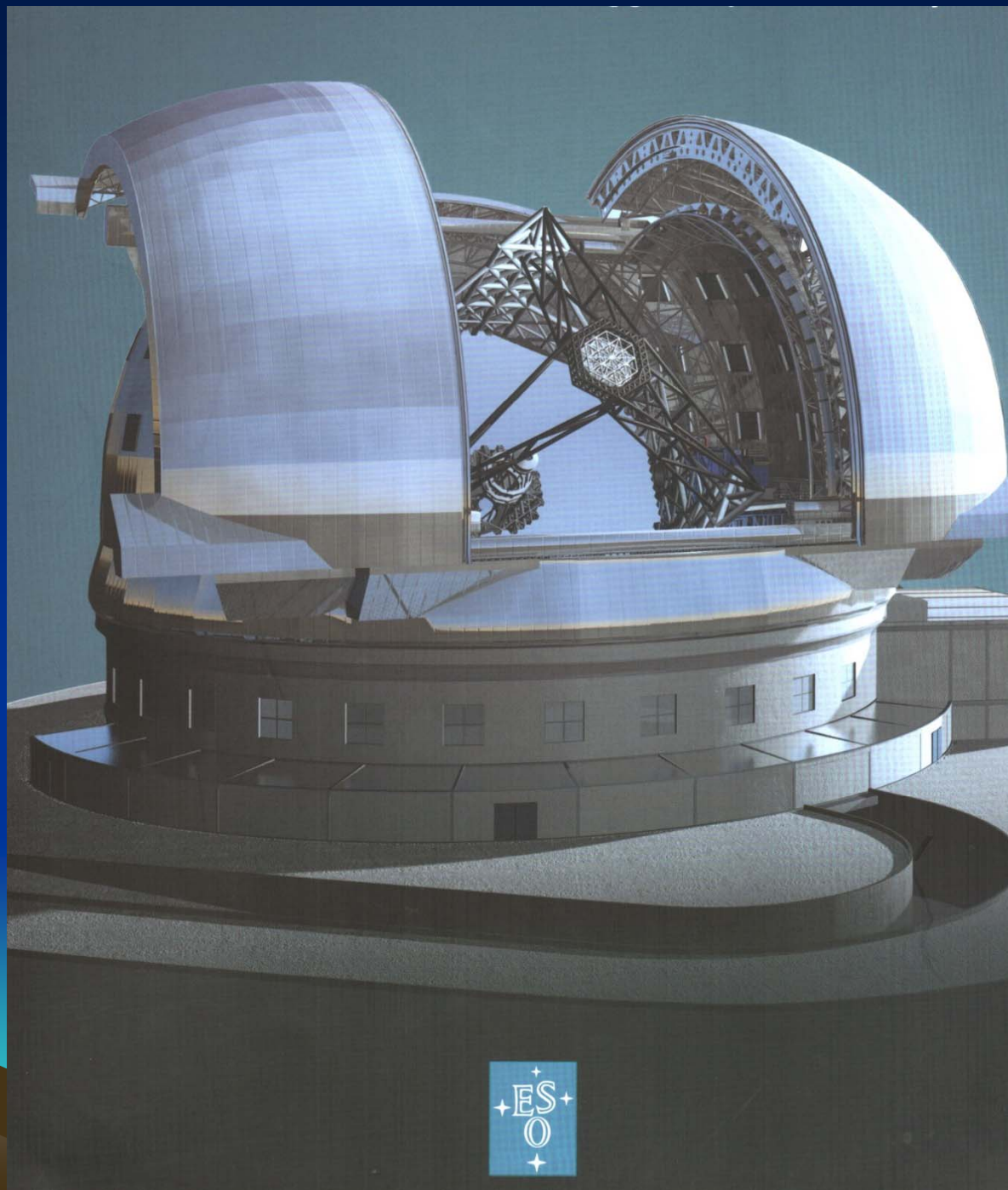
Америка-Канада : 30 м

TMT – Thirty Meter Telescope

Америка -Аустралија

Giant Magellan Telescope

JWST – 6.5m 2013



ELT-European Large Telescope 42 m, 2016

-Директно мерење убрзања ширења Универзума

-Прве звезде

-Примордијалне галаксије и црне рупе

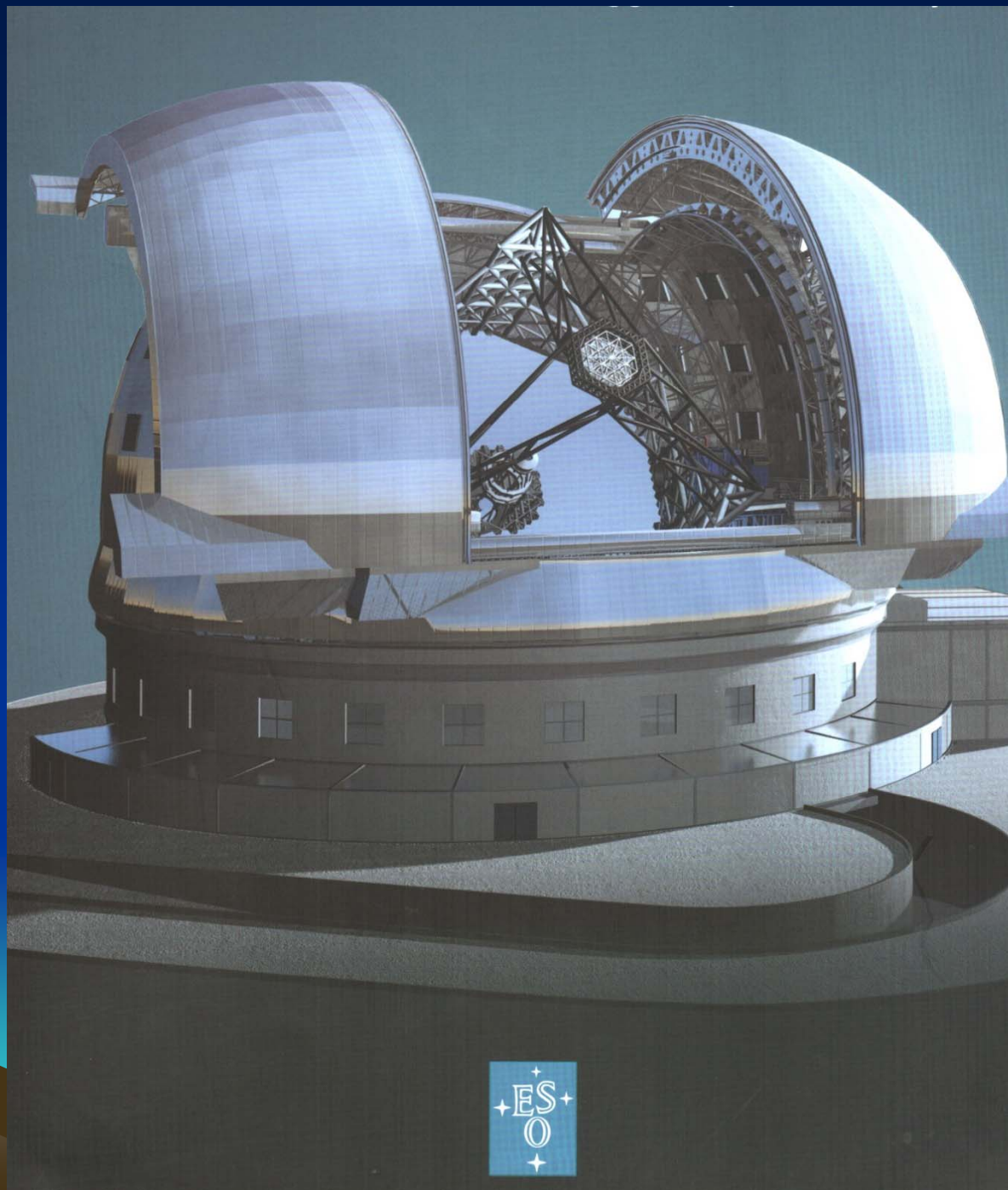
-Настанак галаксија

-Порекло и еволуција звезда и планета

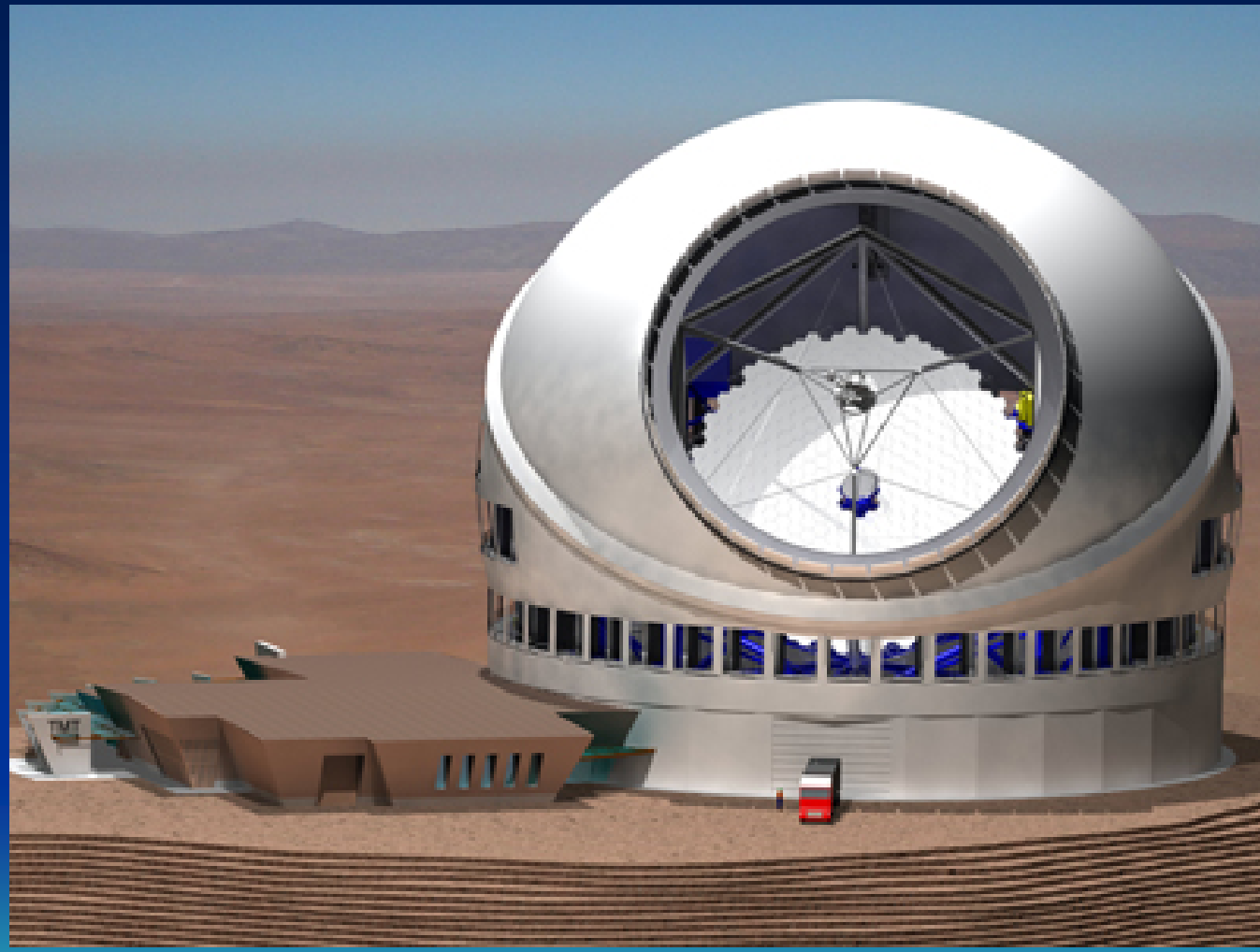
-Слике егзопланета у настањивим зонама

-Карактеристике атмосфере егзопланета

-ТРАГАЊЕ ЗА ЗНАЦИМА ЖИВОТА



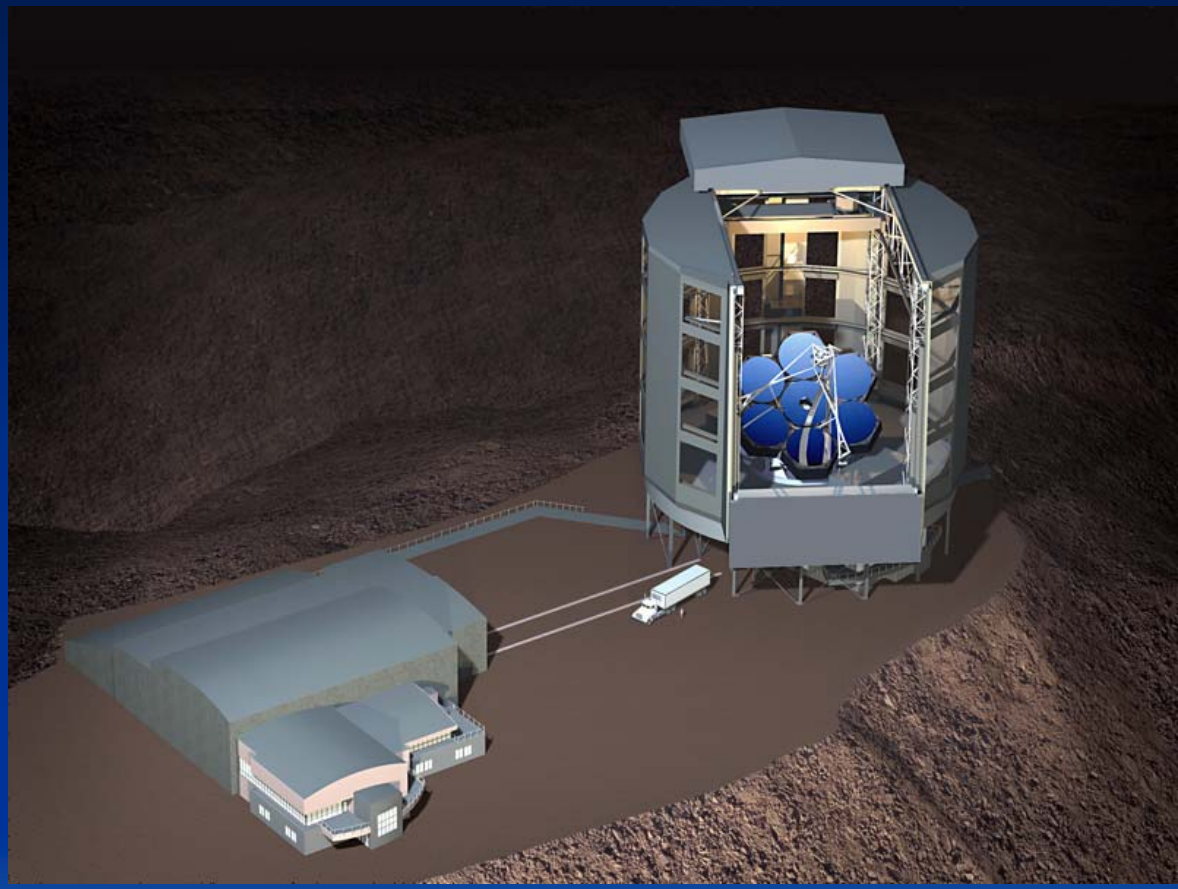
TMT-Thirty Meter Telescope
2018



GMT – Giant Magellan Telescope

2 4.5 m, 2018

Слике десет пута оштрије од Хабловог телескопа



James Webb Space Telescope

6.5 m, 2013

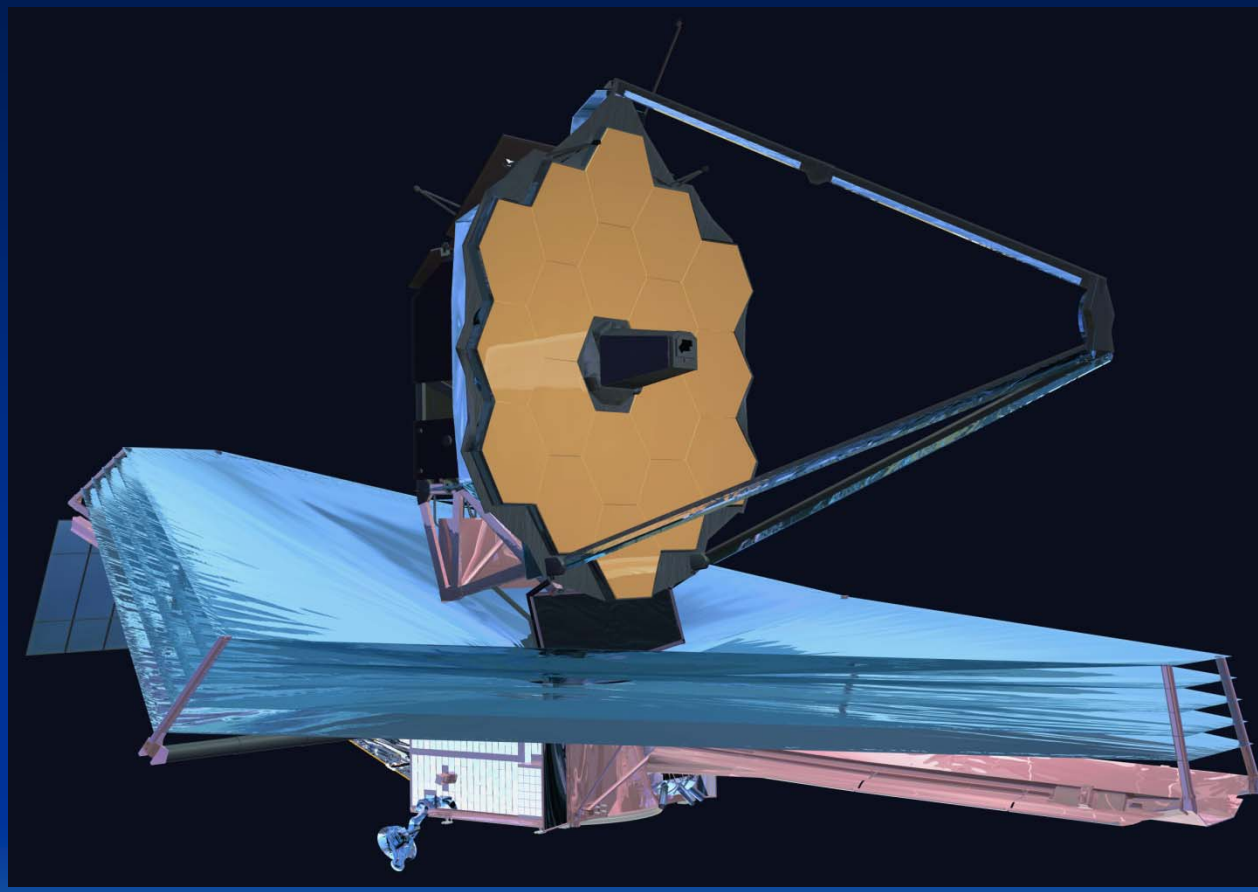
0.6 – 27 μm

-Крај Доба мрака

--Рејонизација и прва светлост

--Настанак галаксија, звезда, протопланетарних и планетарних система

--Порекло живота



ЕВРОПСКИ ТЕЛЕСКОПИ

- 9 телескопа 3.5 м – 4.2 м
- 12 телескопа 1.9 м – 3.5 м
- 20-25 телескопа 1 – 1.8 м, већина више не ради научно
- ASTRONET – OPTICON Комисија до септембра 2009 направиће стратегију за оптимално коришћење телескопа 2-4 м од стране европске астрономске заједнице
- Transnational Acess Program

ОСТАЛЕ ВАЖНЕ МИСИЈЕ

- GAIA 2012, Милијарду звезда, десетине хиљада егзопланета, 500.000 квазара Мапирање Млечног пута у три димензије
- DARWIN 2020, ПРОУЧАВАЊЕ ЕГЗОПЛАНЕТА И ТРАГАЊЕ ЗА ЖИВОТОМ НА ЊИМА

Draft agenda for the 1st EAS Business Meeting, Hatfield (United Kingdom)
Monday, 20th April, 2009, 12h30.

1) Report by the President

2) The EAS WWW Homepage and Mailing List

3) Information exchange between EAS and the Affiliated Societies

4) Contacts of our Society with Sister Societies

5) Status of EAS Mission Statement (Astroland)

6) Joint Division EAS/EPS

7) JENAM 2010, Portugal 6-10 09.2010 Lucadon

8) Future Activities of EAS

9) Any other Business

EUROPEAN ASTRONOMICAL SOCIETY

EAS :

17th General Assembly
Hatfield, Tuesday 21st April 2009, 17h30

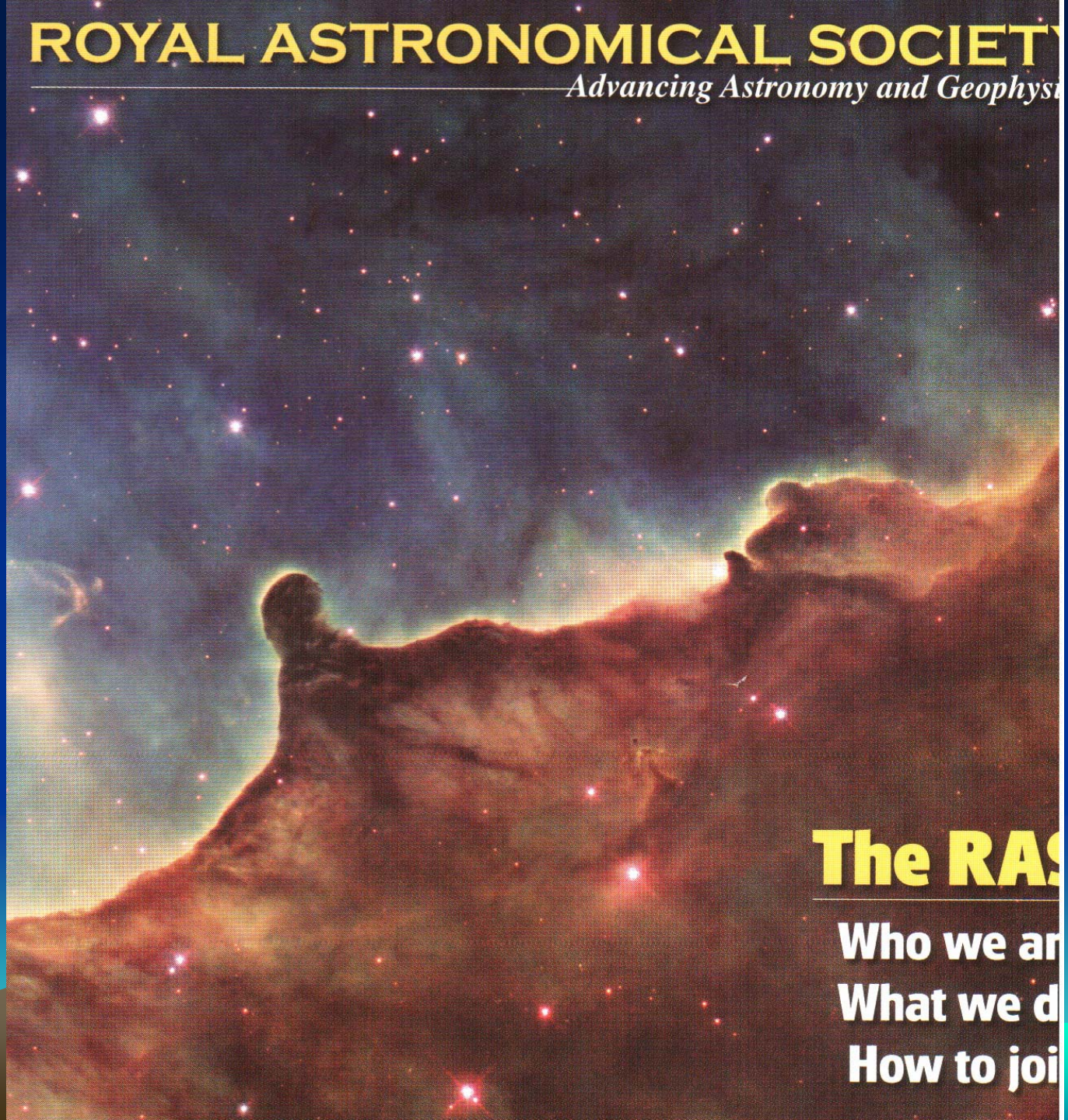
Draft Agenda

1. Adoption of the Agenda
2. Adoption of the Minutes from the 16th Business Meeting, Vienna, 2008
3. Report by the President
4. Report by the Treasurer
5. Report by the Secretary
6. Changes to the Constitution and Bye-laws
7. JENAM 2010, Portugal
8. Report on EAS and IYA activities
9. Astronomy in SE Europe
10. Any Other Business

Proposed budget for 2009

Income (Euro)	
Membership fees	18000
Sales	1300
Donation for travel grant	300
Transfer from Capital 9000 (IYA2009 & Prize+JENAM)	
Total income	**28600**

Expenses (Euro)	
Newsletter	6000
Secretariat (adm & services)	6000
Postage & off.supplies	1000
IYA2009	6000
Prize (travel exp.)	1000
Bank & credit card charges	600
JENAM(grants+desk) 5000	
Web page	2000
Meetings	500
Unforeseen exp.	500
Total expenses	**28600**


ROYAL ASTRONOMICAL SOCIET
Advancing Astronomy and Geophys
The RA
Who we ar
What we d
How to joi

РАС Промовише астрономију, геофизику и интердисциплинарне области

Welcome to the Royal Astronomical Society

The RAS exists to advance, and to record the history of, our understanding of the Earth, the solar system, the galaxies and the nature of the universe. It does this by promoting astronomy and geophysics, interdisciplinary sciences that seek answers to deep questions about the origin and fate of the cosmos and our place in it. This requires gifted scientists with access to leading-edge facilities and the resources to exploit them. The RAS gives them a powerful voice with government and its agencies.

The RAS, based in Burlington House in London, welcomes as members – whether as Fellows or Friends – not only professional researchers, but students, keen amateurs, school teachers, writers and members of the public who share its aims and who appreciate its many benefits. Join the RAS and ensure that the Society continues to champion astronomy and geophysics in the 21st century!

Images (Cover) Giant gaseous cavity within star-forming region NGC3324 (NASA, ESA, Hubble Heritage Team [STScI/AURA]). (Background) The Sun in extreme ultraviolet (SOHO: ESA & NASA). (Left) Burlington House. (Right) A Society medal.

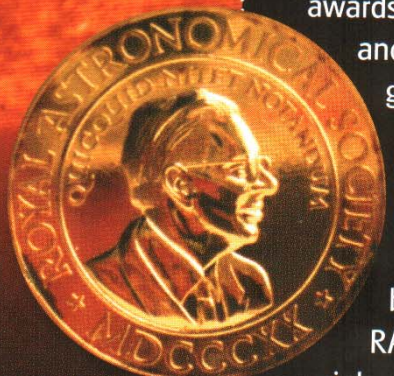
Рас је глас астрономске и геофизичке заједнице. Даје награде, признања, медаље и стипендије

Leading the Community

The RAS is the recognized voice of the UK's astronomical and geophysical communities. It represents the UK in the International Astronomi Union and champions the professional views of astronomers and geophysicists by lobbying ministers and officials, making submissions to parliamentary and other national enquiries, and producing or commissioning reports on issues affecting the training and careers of scientists. Through its policy and press officer these activitie are brought to wider public attention.

Supporting the Community

The RAS helps early-career scientists through awards and prizes for outstanding PhD theses and early postdoctoral work. It provides grants to people who are not eligible for grants from research councils, and provides a full three-year scholarship for post-doctoral research. Major contributions to science are recognized by the award of medals and prizes. The RAS provides a free email alert service fo

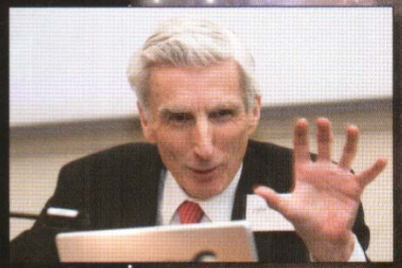


РАС организује и спонзорише конференције и предавања. Публикује MNRAS, Geophys. J. Int, Astron. & Geophys.

Disseminating Knowledge: Meetings

The RAS organizes and sponsors meetings throughout the country, including monthly one-day specialist discussion meetings in Burlington House between October and May, and lectures, including presentations by renowned scientists.

The annual week-long RAS National Astronomy Meeting, hosted by a different university each year, is attended by hundreds of academic researchers and students. It is a highlight of the year for UK astronomy.



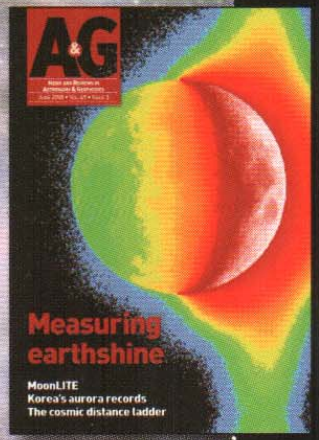
Disseminating Knowledge: Publications

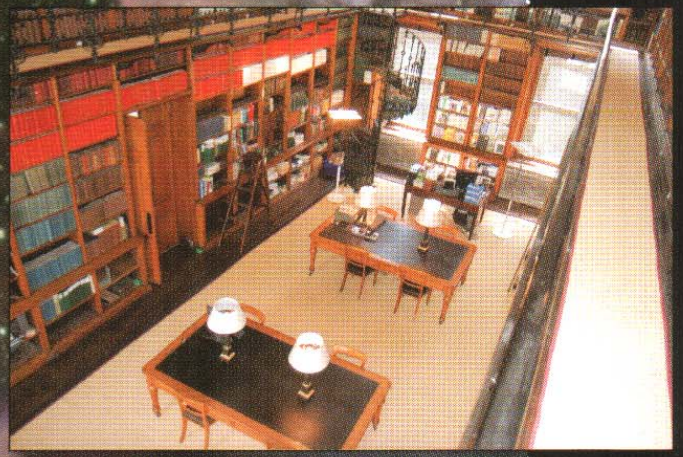
The RAS publishes *Monthly Notices* (three times a month!) and *Monthly Notices Letters*, which contain original research in positional and dynamical astronomy, astrophysics, radio astronomy cosmology, space science and the design of astronomical instruments; *Geophysical Journal International*, which consists of research papers and notes, letters and book reviews on all aspects of theoretical, computational and observational geophysics; and *Astronomy & Geophysics*, the RAS's topical magazine carrying news and research reviews in a succinct and accessible form. Electronic versions of these publications are available free to RAS members.

Images (Background) Gemini image of superbubble complex N44. (Left) Astronomer Royal Lord Rees at Burlington House. (Right) *Astronomy & Geophysics*; the Library.

Storing Knowledge

The RAS has a world-class Library. It receives some 300 current periodicals in astronomy and geophysics and has holdings of more than 3000 ceased titles. It contains more than 10 000 books, ranging from the popular level to conference proceedings and the second-largest specialist collection of astronomical rare books in Britain. In addition, the Library holds important archives and photographs. The book and journal catalogue can be searched on line at http://ras.heritage4.com/.





Education and Outreach

The RAS promotes the appreciation and understanding of astronomy and geophysics among people of all ages and backgrounds. It runs an annual schools competition, publishes information for beginners as well as for undergraduate and postgraduate students, validates school teaching materials and organizes popular lunchtime lectures at Burlington House.

Where We Are

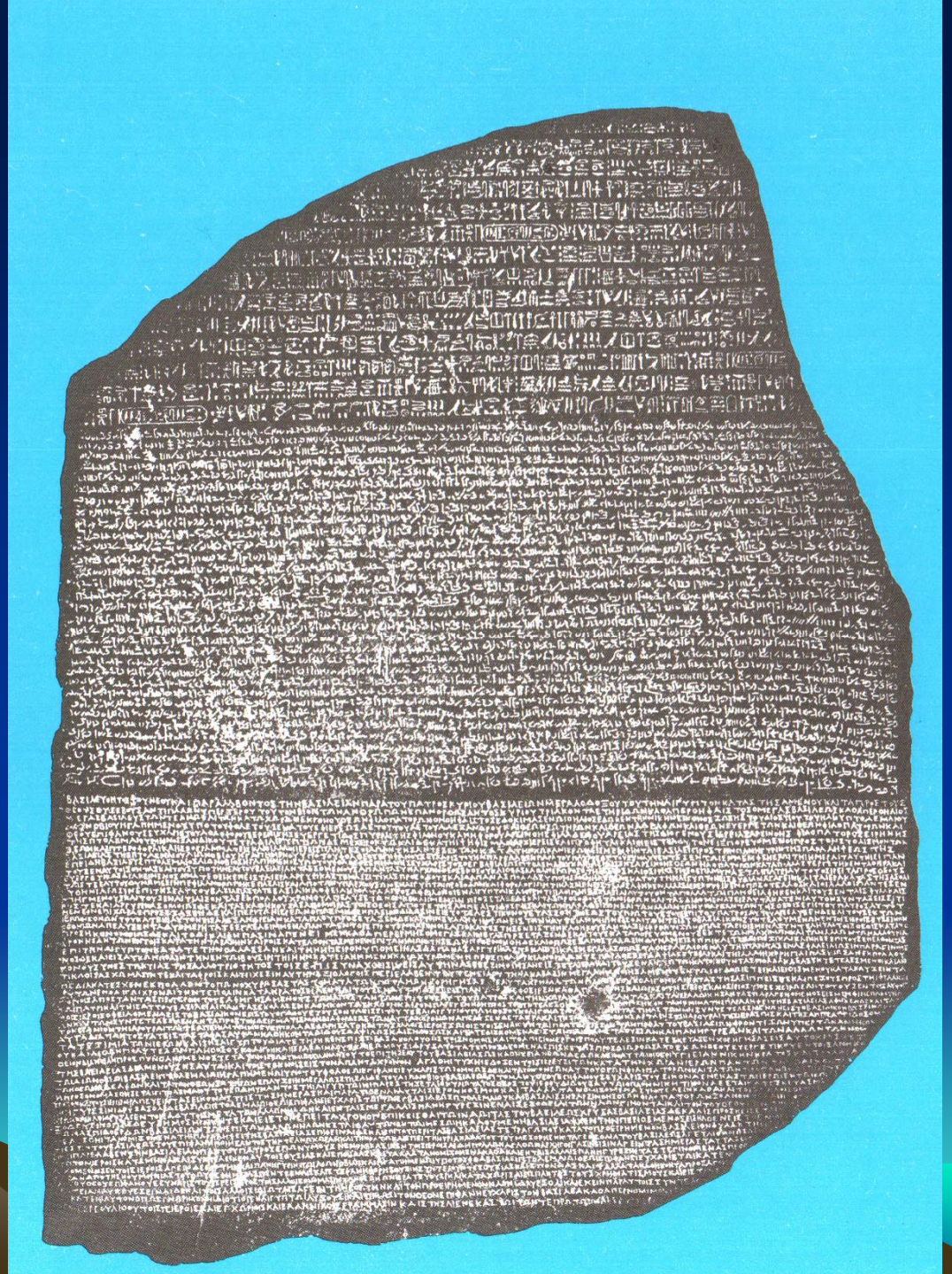
Since 1874, when the RAS was 54 years old, it has occupied part of the historic Burlington House in Piccadilly, central London. Fellows have the use of a state-of-the-art lecture theatre, meeting room, lounge and library.

For More Information

Contact: The Executive Secretary, Royal Astronomical Society, Burlington House, Piccadilly, London W1J 0BQ. Tel. 020 7734 4582 or 020 7734 3307. **www.ras.org.uk**

Images (Background) View of Mars from NASA'S rover Spirit (NASA/JPL-Caltech/Cornell University). (Left) Schools outreach.


Nicholas Copernicus



Trafalgar Square and Nelson's Column, London.


LONDON

THE TOWER AND TOWER BRIDGE, LONDON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