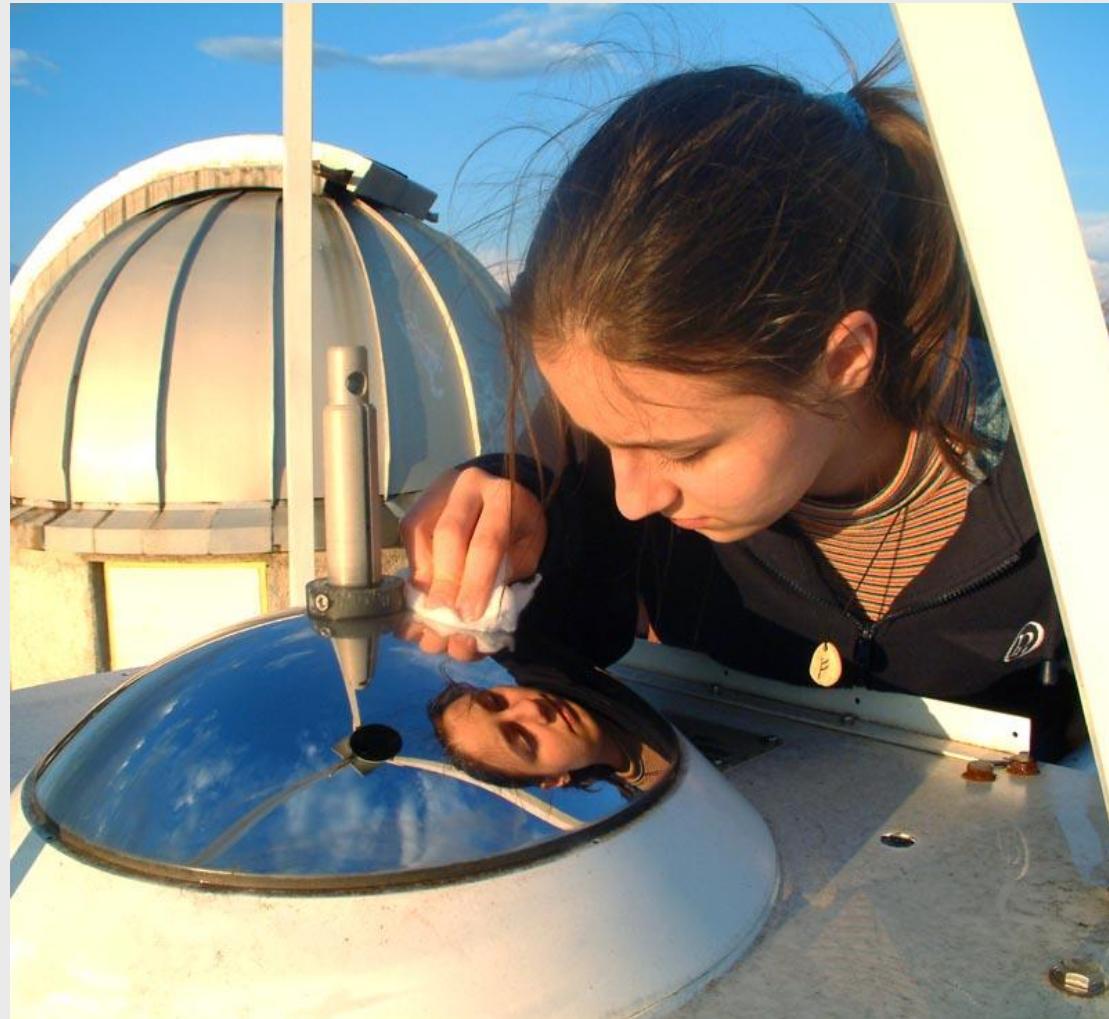




# KOLIKO RANO ?

se mladi mogu početi  
baviti znanosti?



## PITANJA:

---

- Što mlade danas motivira?
- Koliko rano se mladi mogu početi baviti znanosti?
- Kako se može potaknuti njihovo bavljenje znanosti?
- Koji je ispravan način rada s mladima zainteresiranim za znanost?
- Koje kompetencije moraju imati obrazovatelji (eksperti)?
- Što bi trebalo učiniti Sveučilište da bude više izvanškolskih programa za srednjoškolce i da ih se više uključuje u te programe?
- Što bi trebala učiniti država?
- Što od Sveučilišta trebaju oni koji rade s mladima?



Zvjezdarnica Višnjan  
nova osmatračnica, Tičan

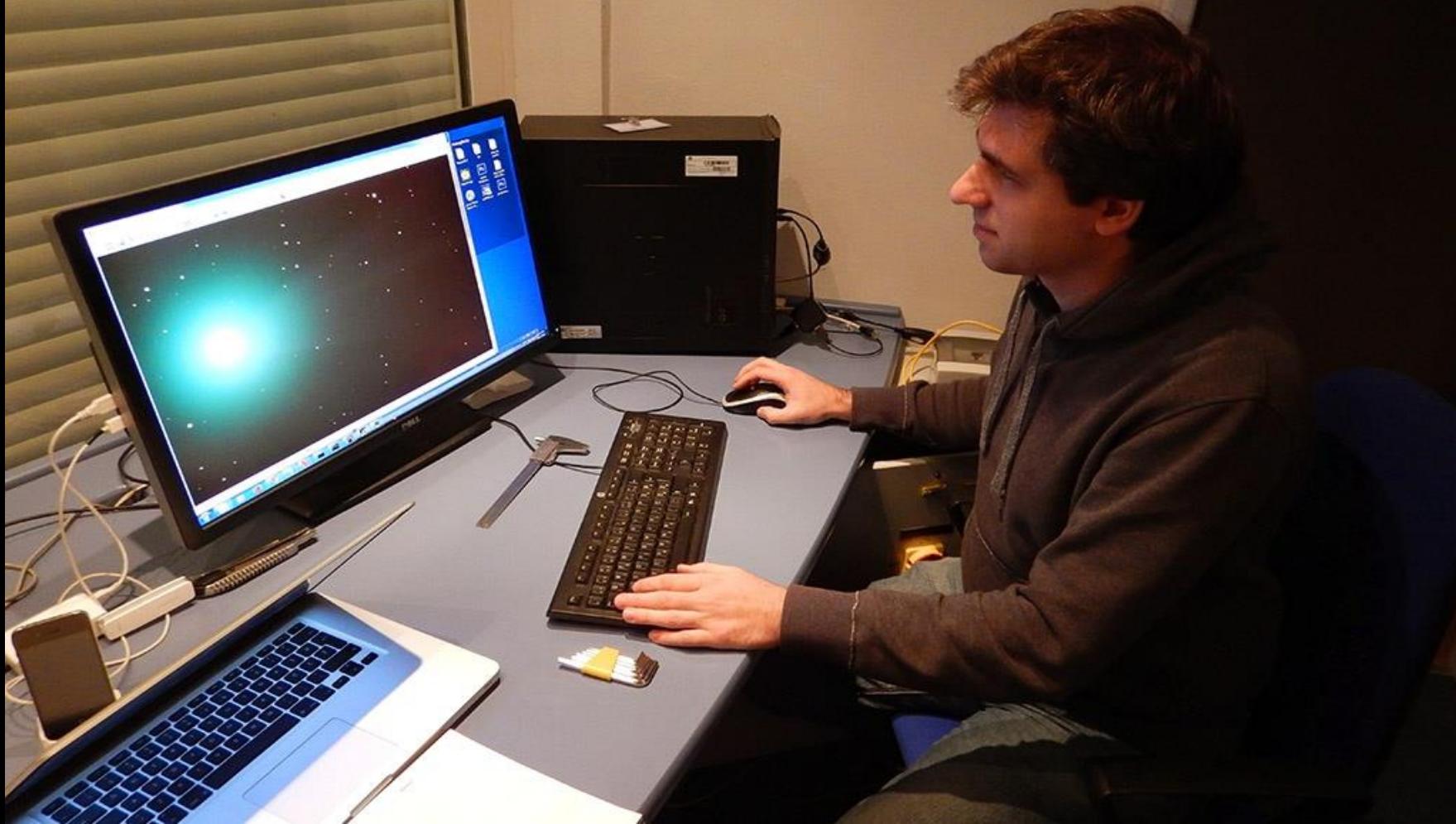


DAGOR teleskop  
promjer objektiva 1 m



ZAKLADADRIS







OTKRIĆA:

## Visnjan Observatory

MPC code 120:

1750 – designations

1463 - numbered objects

225 - prin.designations

20 - one-opp. objects

2 - comets

1 - mira



<http://planetky.astro.cz/clanky.phtml?cislo=5>

## Ceský príspevek k pozorování planetek v roce 1999

*Ludek Vasta, Petr Pravec*

..... (snip) .....

Muzeme ríci, ze český príspevek k astrometrii planetek byl v minulém roce z globálního pohledu drobný, ale neprehlédnutelný. I kdyz jednoznacne **dominují USA**, je **Cesko na tretím místě**, za **druhým Chorvatskem** (coz je **stanice Visnjan**), v tesném závesu za Českem je **Japonsko** (rada malých stanic provozovaných astronomy-amatéry). Za Ondrejov lze ríci, ze pro nás je 8. místo uspokojivé, nebot se v tomto případe jedná o nás doplnkový program k našemu hlavnímu, fotometrickému programu.

# Minor Planet Discovery Sites

The following table lists the total number of discoveries made at each of the most prolific discovery sites, arranged in decreasing order of number of discoveries.

Rank	Discoveries	Between	Site name
1	31099	1980-2003	Lincoln Laboratory ETS, New Mexico
2	4975	1949-2002	Palomar Mountain
3	4180	1976-2003	European Southern Observatory, La Silla
4	3000	1998-2003	Lowell Observatory-LONEOS
5	2995	1981-2003	Steward Observatory, Kitt Peak-Spacewatch
6	1946	1991-2002	Oizumi
7	1406	1975-2002	Siding Spring Observatory
8	1281	1966-1992	Crimea-Nauchnij
9	1121	1998-2003	Catalina Sky Survey
10	949	1995-2001	Visnjan
11	860	1995-2003	Haleakala-AMOS
12	820	1891-1959	Heidelberg-Konigstuhl
13	812	1982-2000	Peking Observatory, Xinglong Station
14	788	1999-2003	Palomar Mountain/NEAT
15	698	1977-2001	Klet Observatory, Ceske Budejovice
16	697	1987-2000	Kushiro
17	688	1973-2000	Lowell Observatory, Anderson Mesa Station
18	628	1987-1997	Kitami
19	483	1997-1999	Caussols-ODAS
20	470	1961-1995	Karl Schwarzschild Observatory, Tautenburg
21	416	1995-1999	Haleakala-NEAT/GEODSS
22	312	1995-2001	Prescott
312	312	1995-2002	Ondrejov
24	282	1993-2000	Nachi-Katsuura Observatory

Nositelji drugih geografskih otkrića od 1801. do 2003.

- 1.) USA
  - 2.) EU
  - 3.) Japan
  - 4.) Australija
  - 5.) bivši SSSR
  - 6.) Njemačka
  - 7.) Hrvatska
  - 8.) Kina
  - 9.) Češka R.
  - 10.) Italija
- .....

# Razvoj tehnologija

Uz potporu:



**MZOS** iProjekt: 2008-086 Hrvatska meteorska mreža  
– druga faza š.g. 2008/2009



**MIREO** - mjerni  
instrumenti i GPS  
tehnologije: 2010-11.



**ZakladaAdris** - oprema:  
Laboratorij fizike – vakumske  
tehnologije: 2010 -11.



**CARNet** - računalne  
komunikacije i serveri



Računalna i bežične  
komunikacije



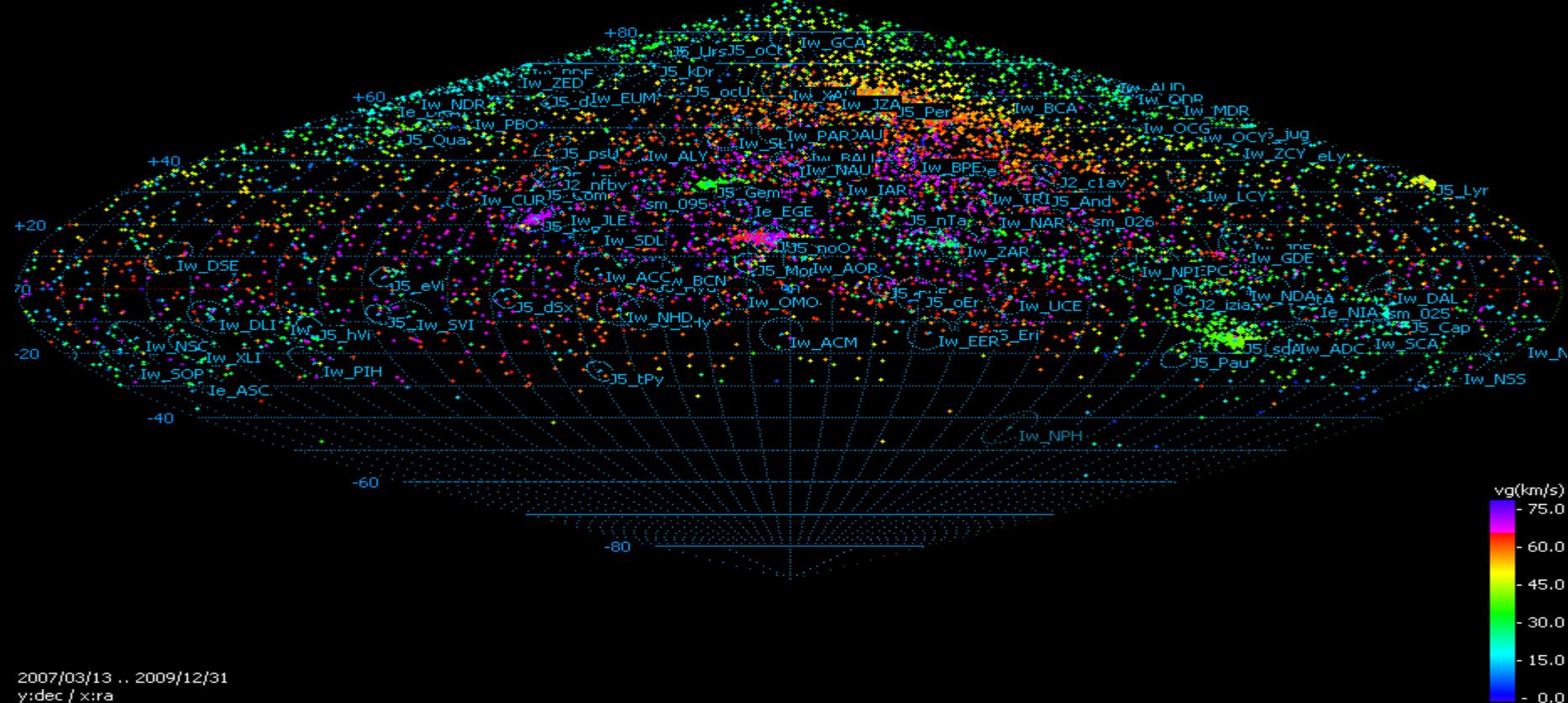


HMM stanica - "Gimnazija Tituša Brezovečkog" - Zagreb

2011.



# All radiants plot 2007-2009 (partial)



CMN\_Petrovsko

**CMN\_20110204\_232041**

CMN\_Zagreb\_Titus

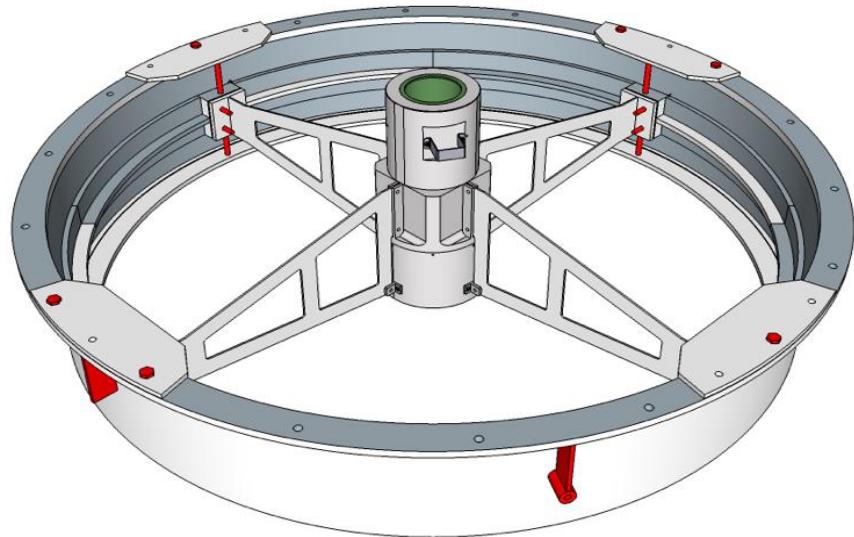
CMN\_Zagreb-RGN

CMN\_Valpovo\_B





Univerza v Ljubljani



Novi fokuser teleskopa 1 m , Tičan



# Korean Research Internship Program - Visnjan

KRI Program 2006 - Visnjan Observatory  
한국 연구 인턴 신분 프로그램 2006년



21-dnevna specijalizacija, u edukaciji i istraživanju, za profesore znanstvenih srednjih škola Južne Koreje



This project has been funded thanks to the support from the South Korean Ministry of Science and Technology

# CAMPUS 2014

PER LE ECCELLENZE SCIENTIFICHE  
delle scuole elementari della Comunità Nazionale Italiana

19 al 25 maggio 2014  
Osservatorio di Visignano



# CAMPUS

per le eccellenze scientifiche delle  
scuole elementari della Comunità  
Nazionale Italiana

**Višnjan – Visignano,**

- Settembre, 02.-08. 2013.
- Maggio, ....19.-25. 2014.
- Maggio, ....11.-29. 2015.
- Maggio, ....02.-20. 2016.



This project has  
been funded with  
support from the  
Italian Ministry  
of Foreign  
Affairs



# CAMPUS 2015

PER LE ECCELLENZE SCIENTIFICHE  
delle scuole elementari della Comunità Nazionale Italiana

Maggio 2015, Osservatorio di Visignano



MAY

# CAMPUS 2016

**PER LE ECCELLENZE SCIENTIFICHE**  
delle scuole elementari della Comunità Nazionale Italiana

Maggio 2016, Osservatorio di Visignano



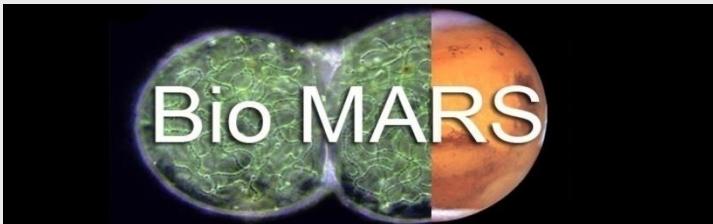
Šteta je da učenici hrvatskih škola nemaju pravo na takav program





# Summer School of Science

## Višnjan



This project  
was held  
thanks to the  
support from  
the Serbian  
Ministry  
of Education



## Kongresi i znanstveni radovi



# IMC 2012

Croatian Meteor Network



La Palma, Canary islands  
IMC Conference  
... učenici...



1.) Neven Grbac

2.) Marin Pichler

3.) Slaven Garaj

4.) Roberto Passuello

5.) Nikola Biliškov

6.) Goran Zgrablić

18.) Sandra Hercigonja

7.) Alan Pevec

8.) Silvija Gradačak

9.) Dejan Vinković

17.) Mirna Franjić

16.) Giovanni Sostero

15.) Vanja Rodiger

14.) Olian Peršurić



13.) Marina Brozović

12.) Vanja Brčić

11.) Renato Železnjak

10.) Petar Radovan

not on the picture: Korado Korlević

NOW, 2014.

**1.) Neven Grbac**

Associate Professor of Mathematics, 2009 ->  
Department of Mathematics, University of Rijeka, Croatia  
- Teaching Assistant, University of Rijeka, Croatia, 2007-2009.  
- M.S. University of Zagreb, Croatia, 2003.  
- Teaching Assistant, University of Zagreb, Croatia, 1999-2007.  
- B.S. University of Zagreb, Croatia, 1999.

**2.) Marin Pichler**

Assistant Professor at Goucher College, Silver Spring, Maryland,  
Washington D.C. 2005. ->  
- Visiting Assistant Professor, Loyola University in Maryland,  
2004-2005.  
- Research Associate, NIST 2002.-2004.  
- Post doctoral research associate, Rice University 2001.-2002.  
- University of Connecticut, PhD, Physics, 1995 – 2001  
- Faculty of Science, University of Zagreb, Croatia

**3.) Slaven Garaj**

Assistant Professor, National University of Singapore, 2012. ->  
Principal Investigator - Garaj Group, Nano/Bio Physics Laboratory, NUS  
- Harvard University - Department of Physics  
- PhD from Swiss Federal Institute of Technology Lausanne (EPFL),  
Switzerland

**4.) Roberto Passuello**

UNIX System Administrator at Elettra-Sincrotrone Trieste S.C.p.A., Italy  
- System Administrator at Osservatorio Astronomico di Asiago  
- Università degli Studi di Padova,  
- Istituto Tecnico Industriale "A. Malignani" - Udine

**5.) Nikola Biliškov**

Laboratory for solid state and complex compounds chemistry,  
Institute Ruđer Bošković, Zagreb  
- PhD, University of Zagreb, Faculty of Sciences and Mathematics, 2001 - 2009  
- B.S., University of Zagreb, Faculty of Sciences and Mathematics, 1993 - 1999

**6.) Goran Zgrablić**

Laser/spectroscopy expert at Sincrotrone Trieste, Trieste, Italy  
Gourmet vagabond and passionate wine lover with a degree from  
Italian Sommelier Association  
- PhD, Physics, Ecole polytechnique fédérale de Lausanne, 2001 – 2006  
- Physics, University of Zagreb, 1993 – 2000

**7.) Alan Pevec**

Senior Software Engineer at Red Hat, 2007. ->  
- Senior Consultant at Red Hat, 2002. – 2007.  
- Developer, ArsDigita, 2001 – 2002  
- System Engineer, Zagrebacka banka, 2001 – 2001  
- Database Administrator, Varazdinska banka, 1995 – 2001  
- University of Zagreb 1990 – 1994

**8.) Silvija Gradečak**

Principal Investigator - Gradačak Group, Massachusetts Institute of Technology  
Thomas Lord Associate Professor of Materials Science and Engineering, MIT  
- PhD in Physics, Interdisciplinary Center of Electron Microscopy, Swiss Federal  
Institute of Technology (Lausanne, Switzerland) 2003:  
- Diploma in Physics, Department of Physics, Faculty of Science, University of  
Zagreb (Zagreb, Croatia), 1999

**9.) Dejan Vinković**

Executive Director at the Science and Society Synergy Institute, 2011 ->  
Associate Professor at the Physics Department, University of Split, 2007 ->  
- Visitor at the Institute for Advanced Study, Princeton, 2006-2007.  
- Member at the Institute for Advanced Study, Princeton, 2003-2006  
- PhD (Physics), Department of Physics and Astronomy,  
University of Kentucky, 1997-2003.  
- B.Sc. (physics), Department of Physics, Faculty of Science, University  
of Zagreb (Croatia) , 1991-1996

**10.) Petar Radovan**

Physics teacher, retired  
Entrepreneur and Owner of "Fosil" metal works office

**11.) Renato Železnjak**

Project manager at Ekobit  
- Computer Science, FER, University of Zagreb, 1994 – 1999

**12.) Vanja Brčić**

IT department manager Liburnia Riviera Hoteli d.d. 2011.->  
Entrepreneur and Owner at "Navacom", 1998. ->  
- IT department manager, Riviera Porec d.d. 2001 – 2011.  
- IT manager Laguna Commerce d.d., 1998 – 2001.

**13.) Marina Brozović**

senior scientist at the Jet Propulsion Laboratory, Pasadena, California  
Caltech 2003.  
PhD in physics, Fermilab -2002, alma mater" Duke University

**14.) Olian Peršurić**

First Aid Center Poreč

**15.) Vanja Rodiger**

Entrepreneur and Owner at Kopiralica d.o.o. , 2010. ->  
Freelance photographer and Graphic Designer  
- Faculty of Organization and Informatics, Varaždin, Croatia.

**16.) Giovanni Sostero (18 March 1964 – 6 December 2012)**

- Remanzacco Observatory  
- Sincrotron Elettra  
- over 1880 NASA ADS citations for his work

**17.) Mirna Frančić**

- International Affairs - Coordinator at IFAD, Coordinator/GB office at IFAD  
IFAD - International Fund for Agricultural Development  
Rome, Italy |  
- Master's Research, Chemistry Department, University of Central Florida,  
Orlando, FL, 2001- 2004.  
- Chemistry, Faculty of Science, University of Zagreb, Croatia, 2001.

**18.) Sandra Hercigonja**

teacher,



# EDUKACIJA

## VEP 2012

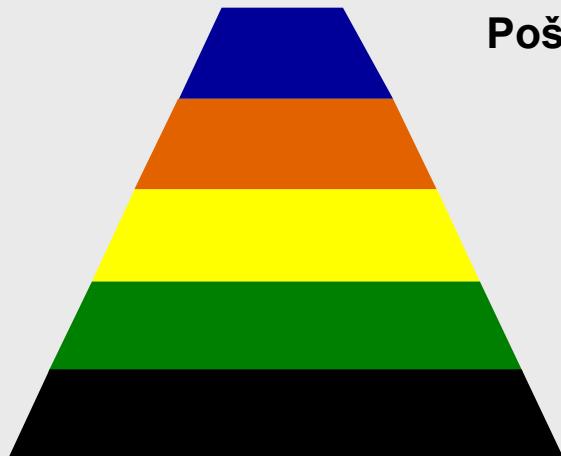
- YSC 1 – Vip
- YSC 2
- YSC 3 – Bistrini istraživači
- S3 - Summer School of Science
- S3 ++ - Sum. School of Science
- VSA - Visnjan School of Astronomy
- Leo camp
- eXplora – Mladi istraživači

24 zemlje

# Što mlade danas motivira?

# *Maslowljeva hijerarhija potreba*

**Tradisionalna**



**Moderna**



# MOTIVACIJA

## BAZIČNA:

kisik

voda

hrana

potreba za spavanjem i odmorom  
zaštita od atmosferskih utjecaja

seks

fizička sigurnost

.....

## MOTIVACIJA RASTA:

potreba za “ljubavlju” i druženjem

pripadnost grupi

samopoštovanje

postignuće

kompetencija

reputacija

status

prestige

potreba za zadovoljavanjem radoznalosti

istraživati

otkrivati

.....

Što motivira darovite ?

# Achievement, curiosity, explore, discover

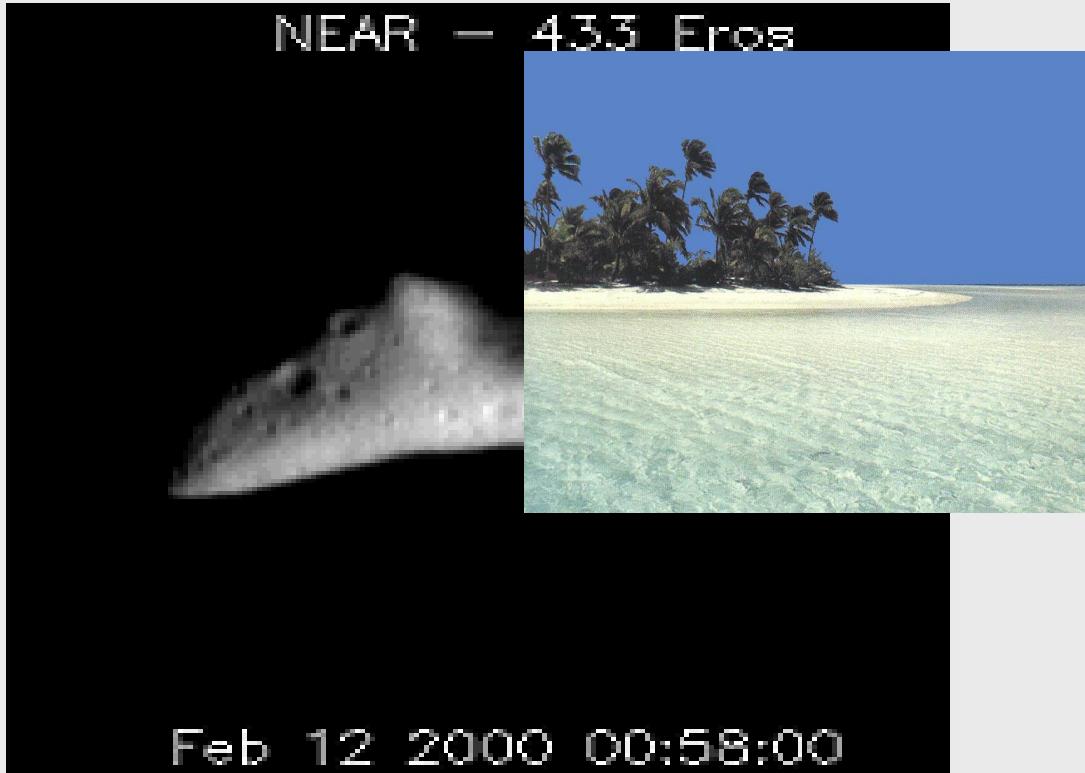
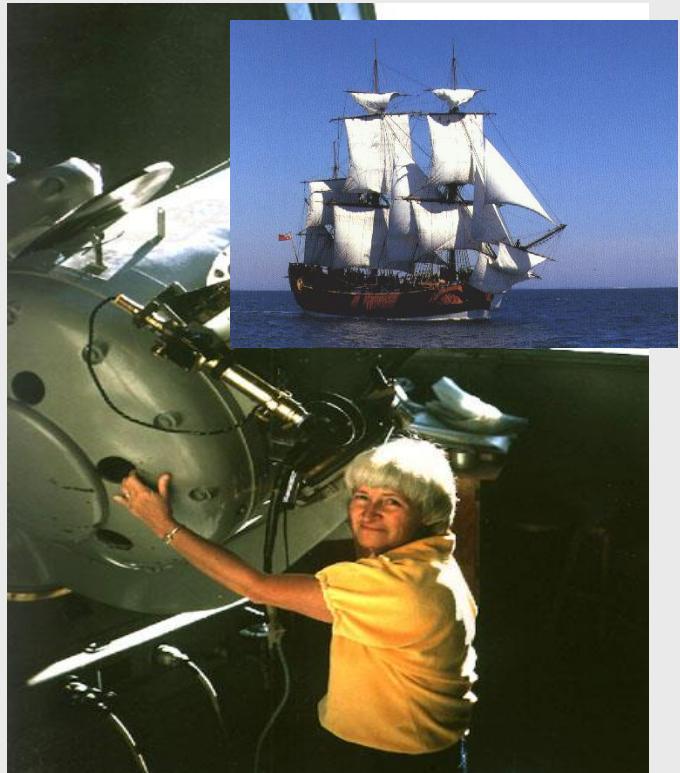
For the gifted population the hierarchy of motivation is radically different! Some **growth needs** are so important, that overcome some **basic needs**. The syndrom is known as the **“Addiction of discovery”**



**“Where no man has gone before”**

# Small Bodies of the Solar System

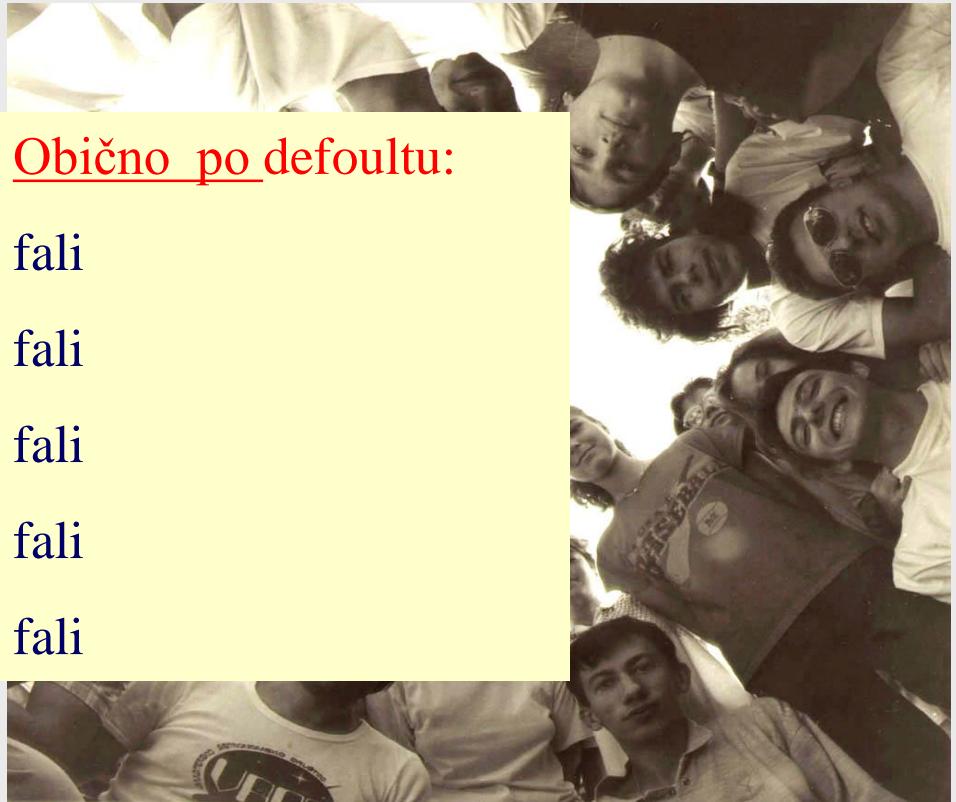
## “Where no man has gone before”



# Problemi s kojima se srećemo u edukaciji darovitih učenika

---

- Motivacija .....
- Inspiracija .....
- Kreativnost .....
- Grupni rad .....
- Podrška zajednice ...



Obično po defoultu:

fali

fali

fali

fali

fali



## NOVA PITANJA:

*Od svih darovitih učenika, iznimno malo njih manifestira svoju darovitost. Gdje griješimo ?*

- obitelj?
- školski sustav?
- društvo?
- .....?



Koliko rano se mladi mogu  
početi baviti znanosću ?

Baviti se znanošću ?

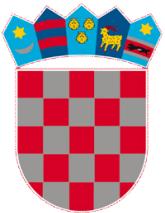
## **ZNANSTVENA METODA !**

Znanstvenom metodom opisivati svijet



- UNESCO – na fakultetu
- EU fondovi – na fakultetu
- Prijedlog strategije istarske županije – na fakultetu
- HPD “E-škola”, Krunoslav Pisk:  
“Nemaju se oni što baviti znanošću, dok ne završe fakultet !”

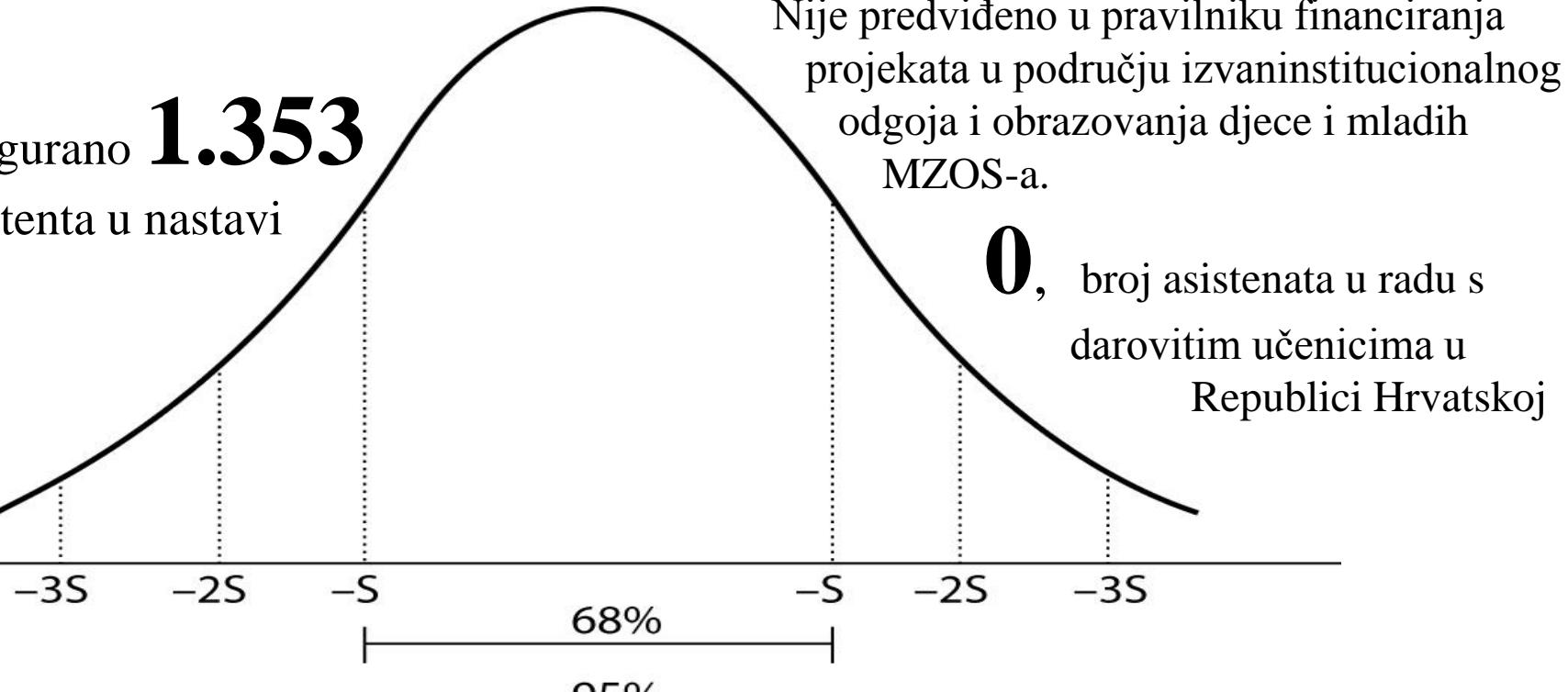




Republika Hrvatska

# 2014. osnovne i srednje škole

Osigurano **1.353**  
asistenta u nastavi



# ZNANSTVENA METODA

- 1.) uočavamo problem:
- 2.) postavljamo hipotezu:
- 3.) provjera hipoteze, eksperiment:
- 4.) postavljanje pravila:
- 5.) ponavljanje eksperimenta  
i potvrda hipoteze od strane  
drugih "istraživača"

# PROMATRAMO VRT

Nitko ne bere male i zelene jabuke!?

Valjda nisu dobre za jelo?

Uberemo nekoliko komada i zagrizemo.

Dok su jabuke male i zelene nitko ih  
ne bere jer su bljak!



# NGO

- Znanstveni piknik
- Festival znanosti
- Famelab
- Otvoreni dan .....
- Noć muzeja
- AstroNoć
- Visnjan science day
- .....



**30 TISUĆA**  
NASMIJANIH POSJETITELJA

**ASTRO  
NOĆ**

Zvjezdarnica na Tičanu

Četvrtkom od 21:00 do 23:00 tijekom ljetnog perioda  
od 21.07. do 01.09.2011.

Napomena: Promatranje samo uz povoljne vremenske uvjette, bez kile i nazobne.

Program:

- 20:30 Projekcija nove zvjezdarnice i obilazak rekonstrukcije kamenog kruga Mali Sveti Andrija
- 21:00 Predavanje
- 21:30 Promatranje teleskopom na hvid kraj zvjezdarnice

Cijena programa je 20,00 kuna za odrasle i 10,00 kuna za djecu.

Za sve dodatne informacije:  
ASTRONOMSKO DRUŠTVO VIŠNJAN  
telefon 052/449 178 ili 091/449 17 88



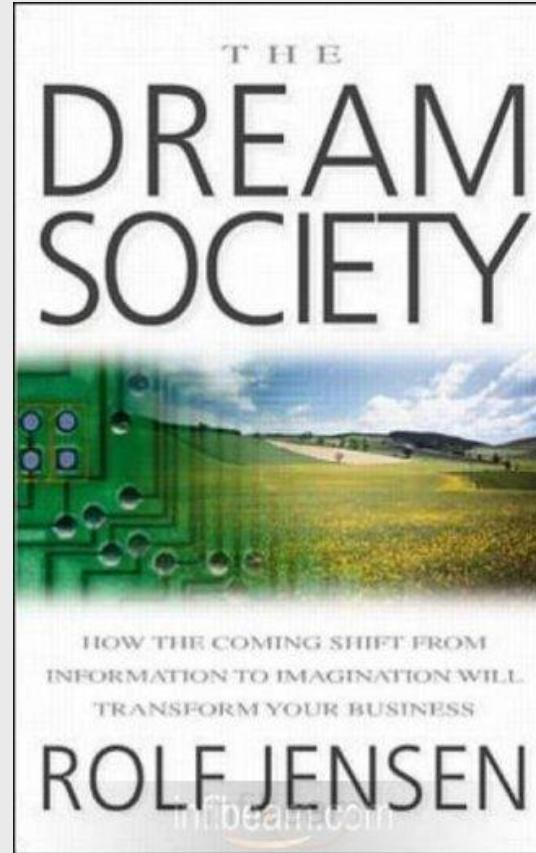


© GREGOR KERVINA

# Rolf Jensen

---

DŽABA STE  
KRECILI



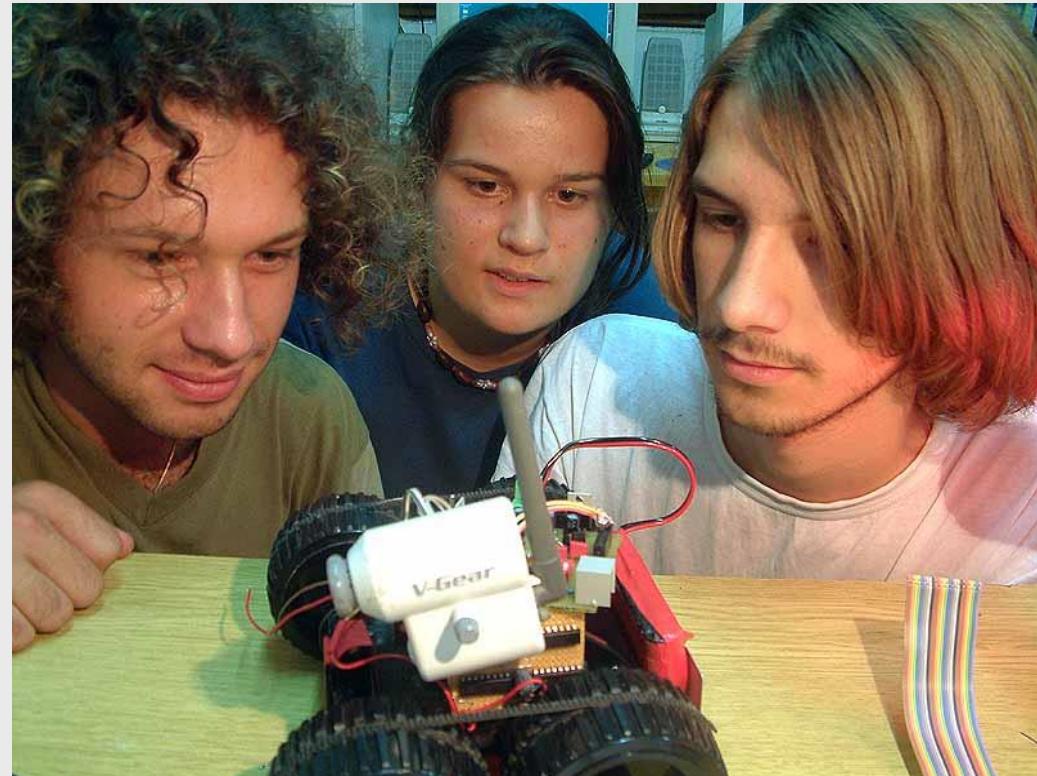
## **PREMISA:**

---

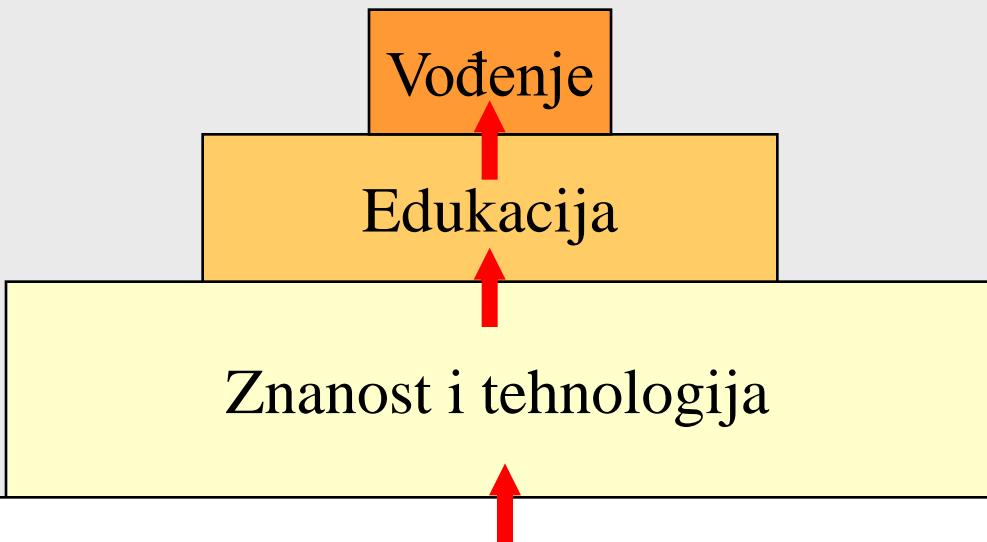
Ljudsko društvo je postalo kompleksan i sustav koji se može održavati samo znanjem i razvojem

## **ČINJENICA:**

- ~ 5-10 % učenika ima izuzetne sposobnosti (talent) za područja znanosti i tehnologije.
  - ~ 2% je darovito
  - ~ 0.2 % ima liderske sposobnosti
- ..... darovitost koja čeka na buđenje!



# Stupnjevi evolucije sposobnosti u svjetu kompleksnih sustava



- Gdje su i kako nestaju daroviti u svakodnevnom životu ?
- Zašto se ta darovitost ne manifestira kod svih?
- Kako ih otkriti?
- Kako ih motivirati?
- Kako ih zaštiti?
- Imamo li mi pravo to raditi?
- .....

# **EDUKACIJA**

## **odgoj za budućnost**

djedu treba odgojiti i  
osposobiti za društvo  
koje dolazi



**Privatnost pojedinca**

**Tehnologija telekomunikacija**

**Tokovi informacija**

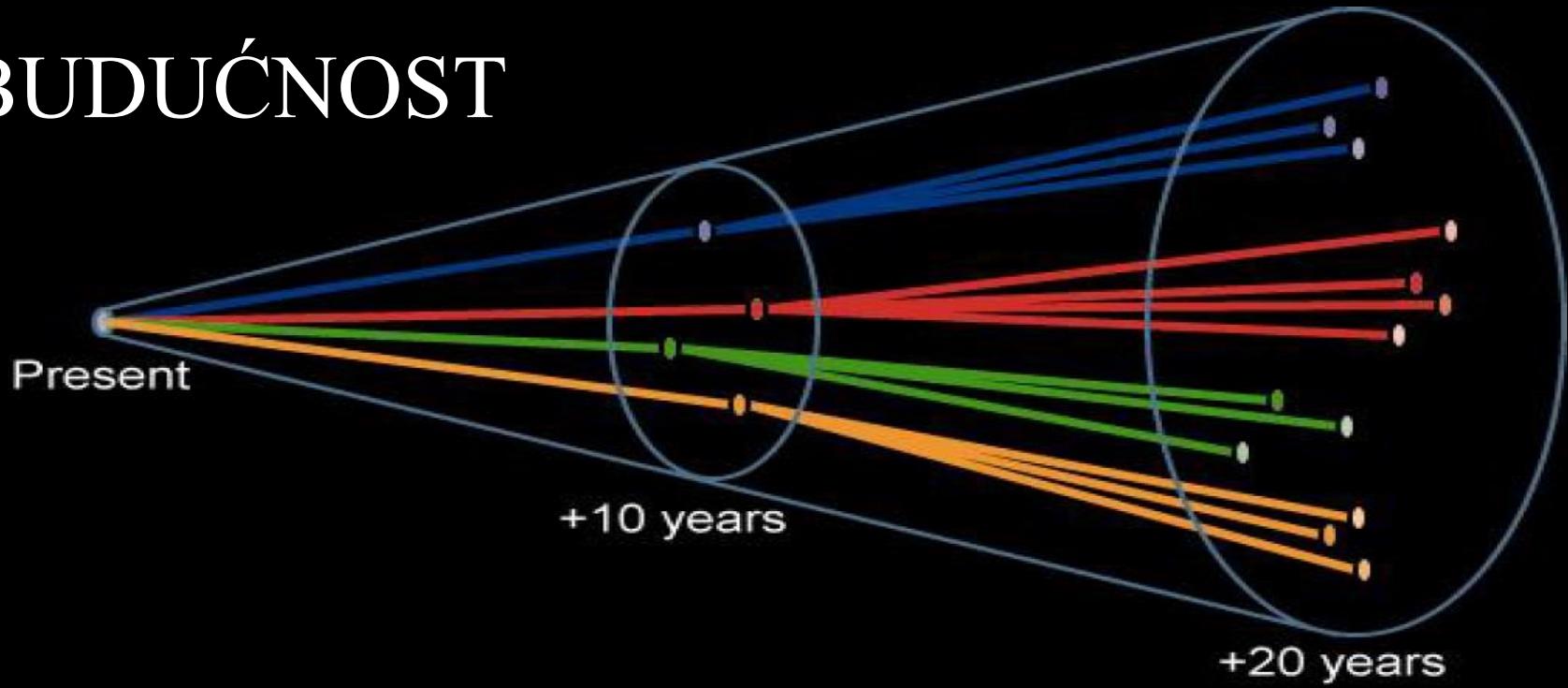
**Migracija političke moći na istok**

**Starenje stanovništva**

## FUTUROLOGIJA

inteligencija – sposobnost predviđanja budućnosti

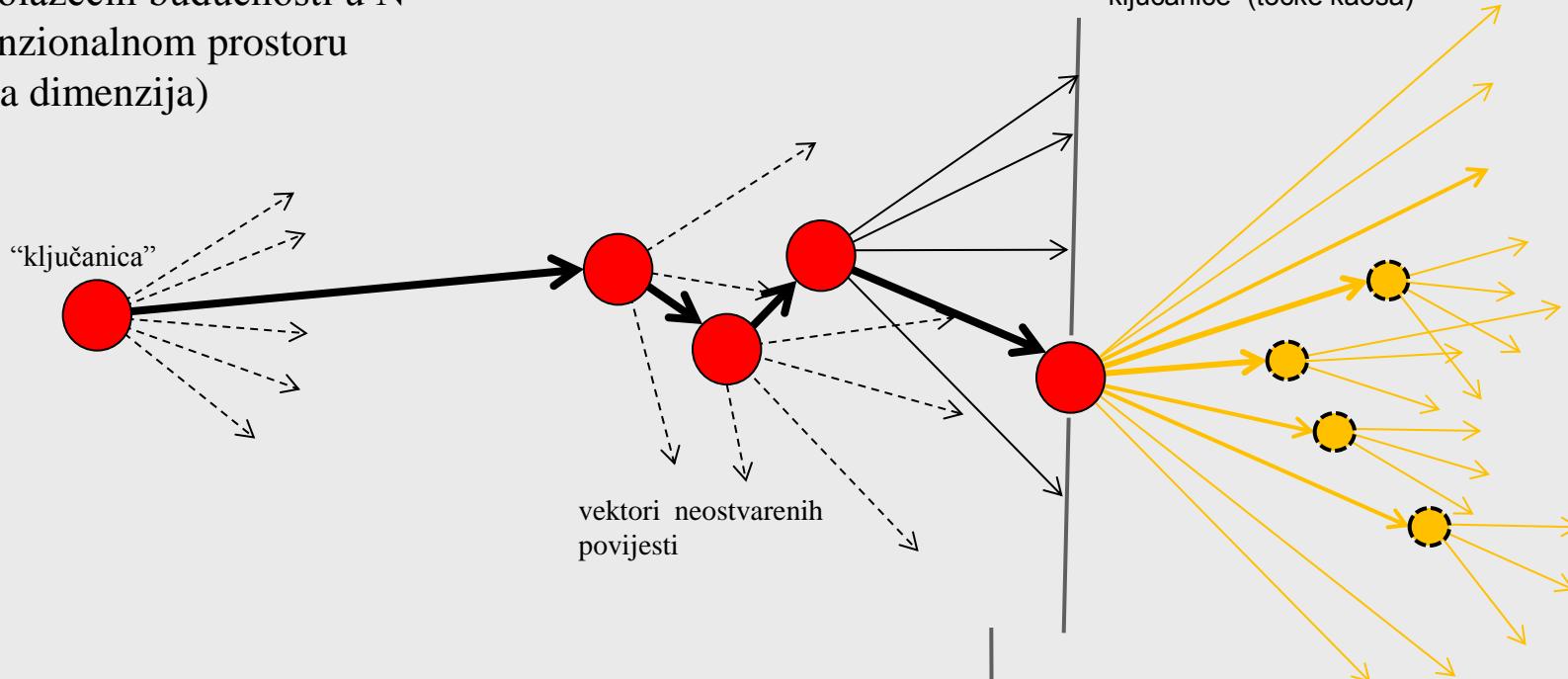
# BUDUĆNOST



Future cone - (in "N" dimensional space), a method for visualizing possible, probable, and preferable futures.

Psychohistory - is a science described in Isaac Asimov's Foundation universe which combines history, sociology, and mathematical statistics to make general predictions about the future behavior of very large groups of people.

VEKTORI bivših prošlosti  
i nadolazećih budućnosti u N  
dimenzionalnom prostoru  
(jedna dimenzija)



PROŠLOST

sve moguće BUDUĆNOSTI  
kao vektori vjerojatnosti ostvarivanja  
i moguće "ključanice"

# Moguće forme evolucije civilizacije - 20 g.



Koliko rano ?

Nema rano,  
odmah, stalno,  
živjeti znanstvenu  
metodu

Gabriela Russo,  
Jesen, 2015.  
u maminoj kancelariji  
2,5 g.



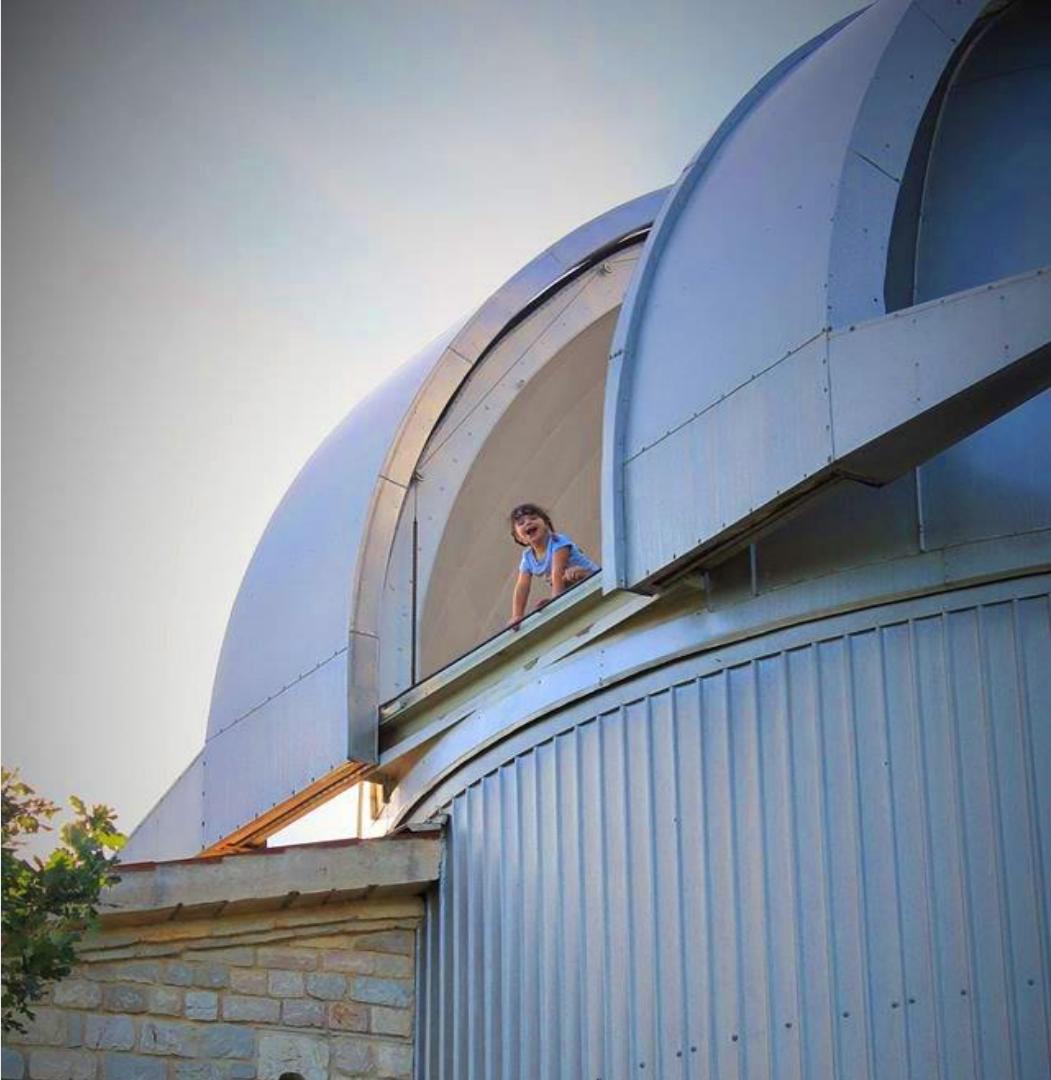
Ljuba Gamulin,  
Ijeto, 1942.  
u tatinom laboratoriju  
(planktolog)  
gleda "akove" (rakove)



1,5 g

Znanstvena metoda  
i Sci/Tech okruženje  
.....stalno

Fedora Matejčić  
Ijeto, 2015.  
u Zvjezdarnici Tičan,  
tijekom posjete  
Sci/Eco vrtića, 3,5 g.



Eksperimentalni edukacijski projekt Sci/Eco:

# Waldkindergarten

ili znanstveni vrtić u šumi

poticanje razvoja,  
rasta, slobode,  
odgovornosti,  
suradnje,  
pripadnosti, ....  
kroz aktivnosti u  
prirodi.







Klub istraživača  
1.-.4. razred o.š.



# YSC

ljetni kamp  
znanosti

3.- 8. razred o.š.











**Marsha Sue Ivins** (born April 15, 1951) - Engineer - American astronaut and a veteran of five space shuttle missions: STS-32, STS-46, STS-62, STS-81, STS-98









# Summer School of Science

1.- 4.r. s.s.



# World United Colleges Project Week - Visnjan





CULVER ACADEMIES  
SPRING BREAK IN MISSION

ŽELITE LI PREDVIDJETI BUDUĆNOST, STVARAJTE JE SAMI.  
THE BEST WAY TO PREDICT YOUR FUTURE IS TO CREATE IT.

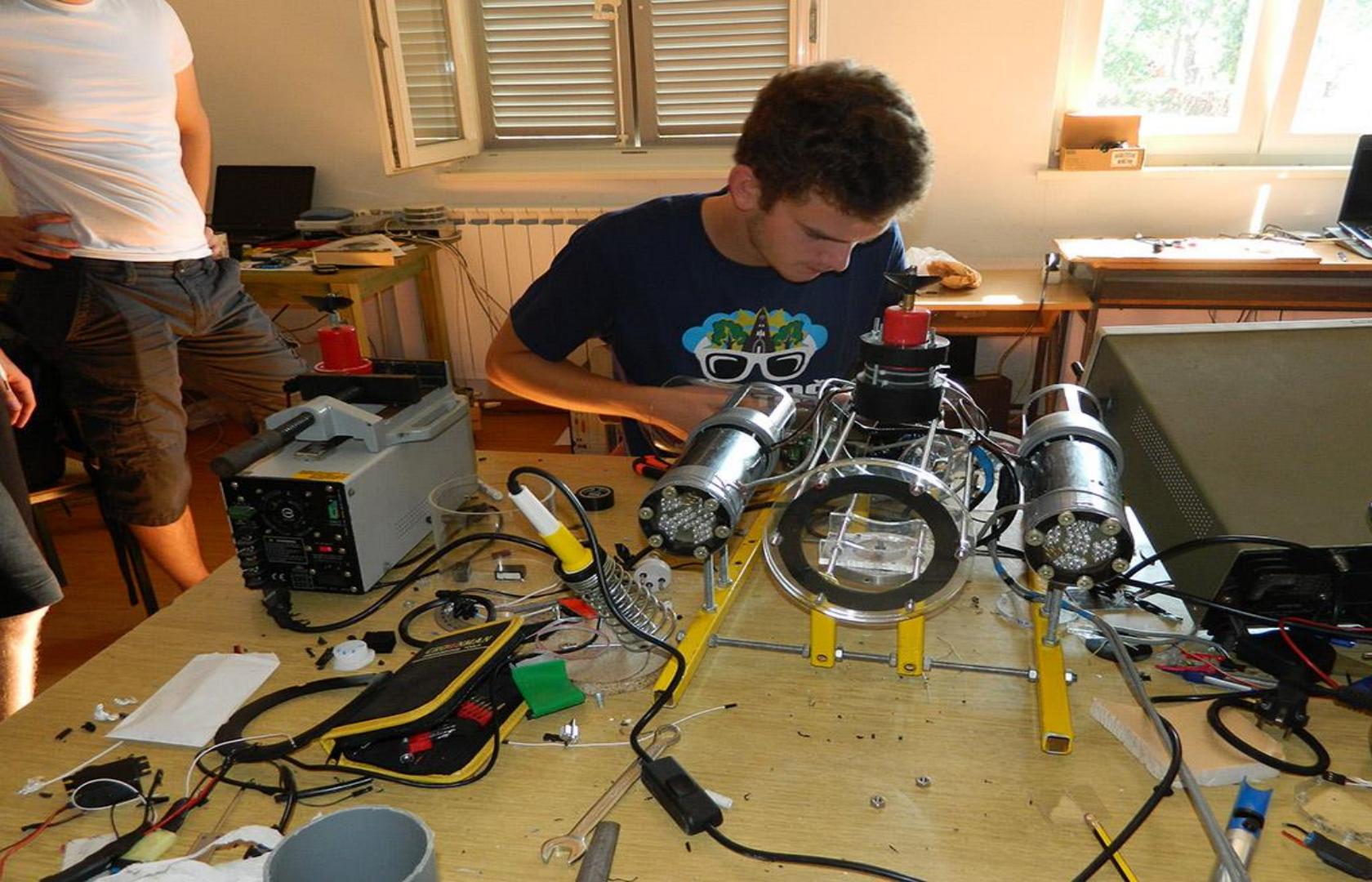
SBM CROATIA TEAM 2010 •



# CULVER









# MARINE Biology

SUMMER SCHOOL OF SCIENCE



VIŠNJAN, 21.-30.7.2008





Tm	Sr	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
61 PRIMETHEUS 237.0482 Np 93	62 NAMAKU 244.0642 Pu 94	63 REBAMON 243.0614 Am 95	64 GADOLIN 247.0703 Cm 96	65 GADOLIN 247.0703 Bk 97	66 GADOLIN 251.0796 Cf 98	67 GADOLIN 252.0829 Es 99	68 GADOLIN 253.0941 Tb 100	69 GADOLIN 258.1006 Tm 101	70 GADOLIN 268.1006 Yb 102	71 GADOLIN 268.1006 Lu 103
NUCLEAR Fission NUCLEAR Fission										
NUCLEAR Fission NUCLEAR Fission										









Koji je ispravan način  
rada s mladima  
zainteresiranim  
za znanost?

# KOPIRATI IZRAEL !



*Izrael*

*"Previše smo mali da nam i  
jedan talent propadne"*



The State of Israel

Ministry of Education  
Division for Gifted and  
Outstanding Students

Budget/y 20.000.000 US\$



# HEMDA, Tel Aviv-Yaffo

Budget/y ~ 2.000.000 US\$

## Educational Environment

- 12 (18\*) laboratories
- Challenging studies
- Enrichment projects
- Contemporary science
- Individual tutoring

## Teacher:

“If something goes wrong- I have no one to blame- but myself..”



**Ili barem SRBIJU .....**



# Srbija



- 3,000 učenika i
- 700 nastavnika obuhvaćeno je posebnim, višednevnim edukacijskim programima samo pri ISP-u.

ISP budžet 2006.  
650.000 EUR

2005. - 650 učenika i studenata godišnje sudjeluje na međunarodnim kampovima



*Stari kampus Istraživačke stanice Petnica, Valjevo*



*Novi kampus Istraživačke stanice Petnica, Valjevo 9.000.000 EUR*

Nikako ne nastaviti sa HR  
modelom!



# Velike razlike u pogledu na: “Hrvatsku kao društvo bazirano na znanju”:

## UNUTAR R. HRVATSKE:

- Država,
- Građanstvo
- Kompanije
- Crkva (vjerske organizacije)
- NGO-i (ne vladine organizacije)



# Nametnut pogleda na: "Hrvatsko društvo bazirano na znanju":



## IZVAN R. HRVATSKE:

- Europska komisija (European Council)
- NATO/OTAN - USA
- M. kompanije, pojedinci, grupe
- Strani edukacijski lanci.
- Strane Sci/Tech zaklade, kulturni centri
- Antiglobalizacijski/ekološki pokreti





Sportska dvorana Žatika ,  
**16,5** milijuna EUR

**32 godina** vrhunske edukacije za buduće nositelje znanstveno  
tehnološkog razvoja ..... kojeg neće biti u R. Hrvatskoj

SAMODESTRUKECIJA:  
nacionalna razina





## SAMODESTRUKCIJA: lokalna razina



**20 godina** vrhunske edukacije za buduće nositelje  
znanstveno tehnološkog razvoja, kojeg neće biti u  
Istarskoj županiji \*

\*

Jedina županija u RH koja ima program tog tipa je Varaždinska županija

# Koje kompetencije moraju imati obrazovatelji (edukatori) ?

- 1.) Moraju biti članovi skupa kojeg educiraju
- 2.) .....

- Što bi trebalo učiniti Sveučilište da bude više izvanškolskih programa za srednjoškolce i da ih se više uključuje u te programe?
- Što bi trebala učiniti država?
- Što od Sveučilišta trebaju oni koji rade s mladima?



# MREKINUTI MONOPOL I DOZVOLITI DA HRVATSKA BUDE DRŽAVA JEDNAKIH ŠANSI !

- i sveučilište
- i država

# ZVJEZDARNICA VIŠNJAN

- Po zakonu ne spada u hrvatske znanstvene ustanove,
- ne spada u hrvatske edukacijske ustanove,
- nema pravo pristupa natječajima MZOS-a,
- nema pravo pristupa bazi OVID i drugim  
Sci. digitalnim bazama u HR,
- nema pravo prijave na natječaj sredstvima  
za razvoj društva, Hrvatske lutrije,
- u djelatnosti rada ne smije stajati: “ projektiranje  
i izrada astronomske optike”,
- mora plaćati porez na “dubit” 20%,
- mora biti u sustavu PDV-a 25 %,
- Zvjezdarnica Višnjan je nonprofit, NGO organizacija.

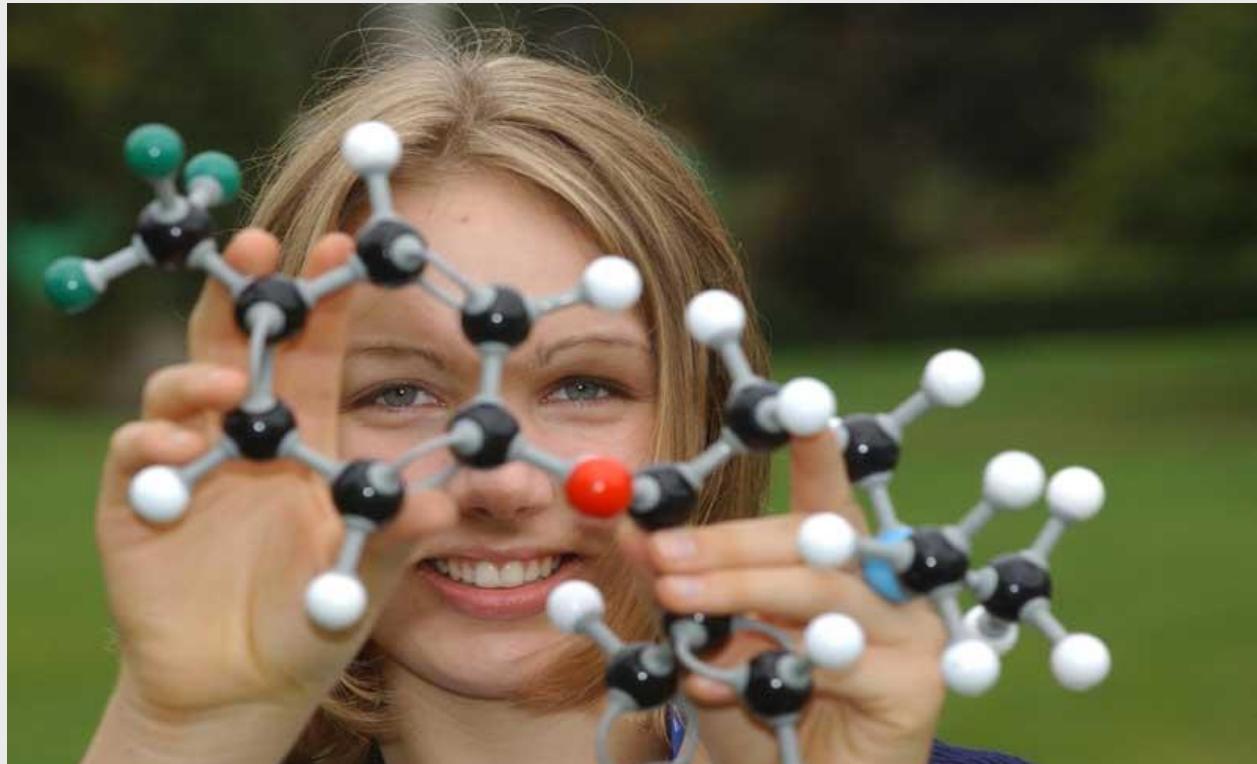




## European Union :

PREMISA: European Union,... a society based on knowledge

**NIJE !**





# NATO

PREMISA: Security through Science.

**ISTINA !**



# VEP

Višnjanski  
Edukacijski  
Projekt



**NYEX**  
NETWORK OF YOUTH  
EXCELLENCE - VISNJAN

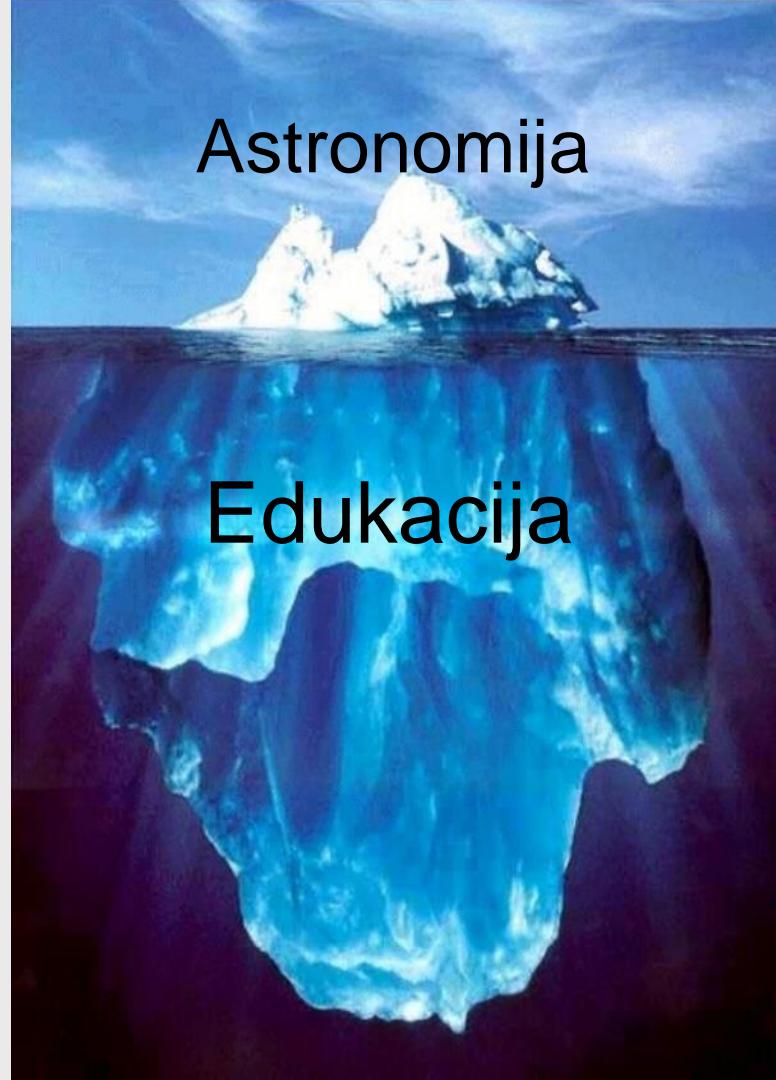


ZVJEZDARNICA VIŠNJAN  
EXPLORA  
Klub istraživača

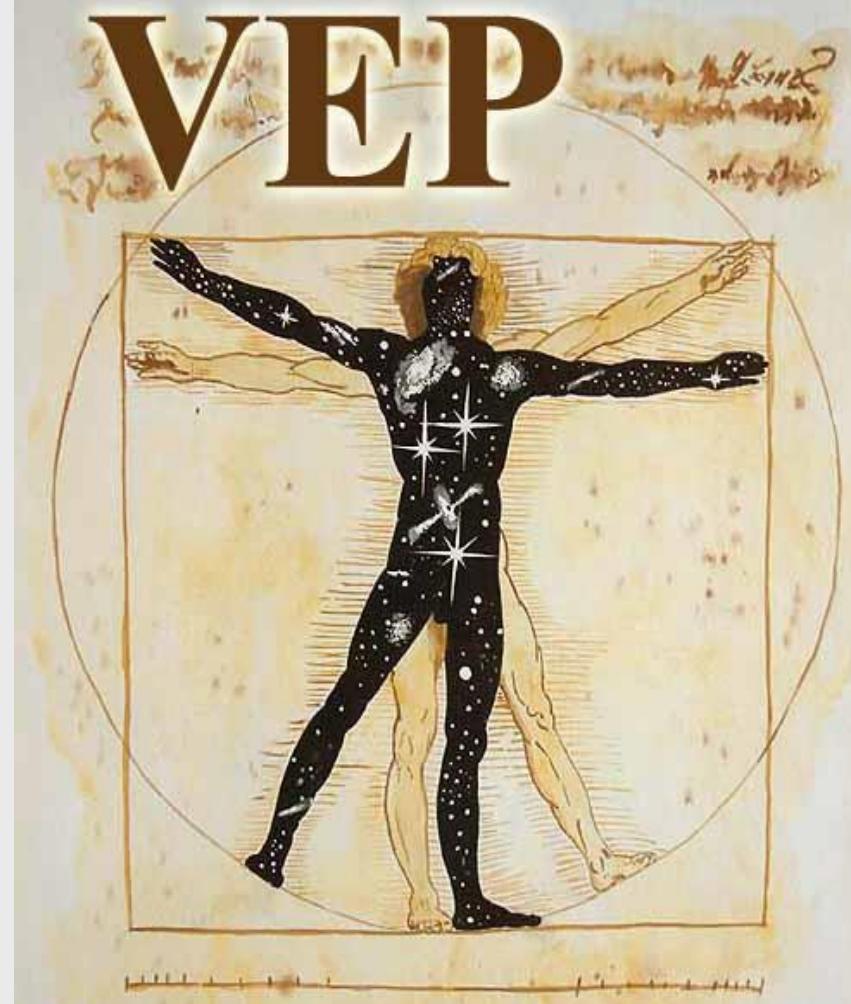


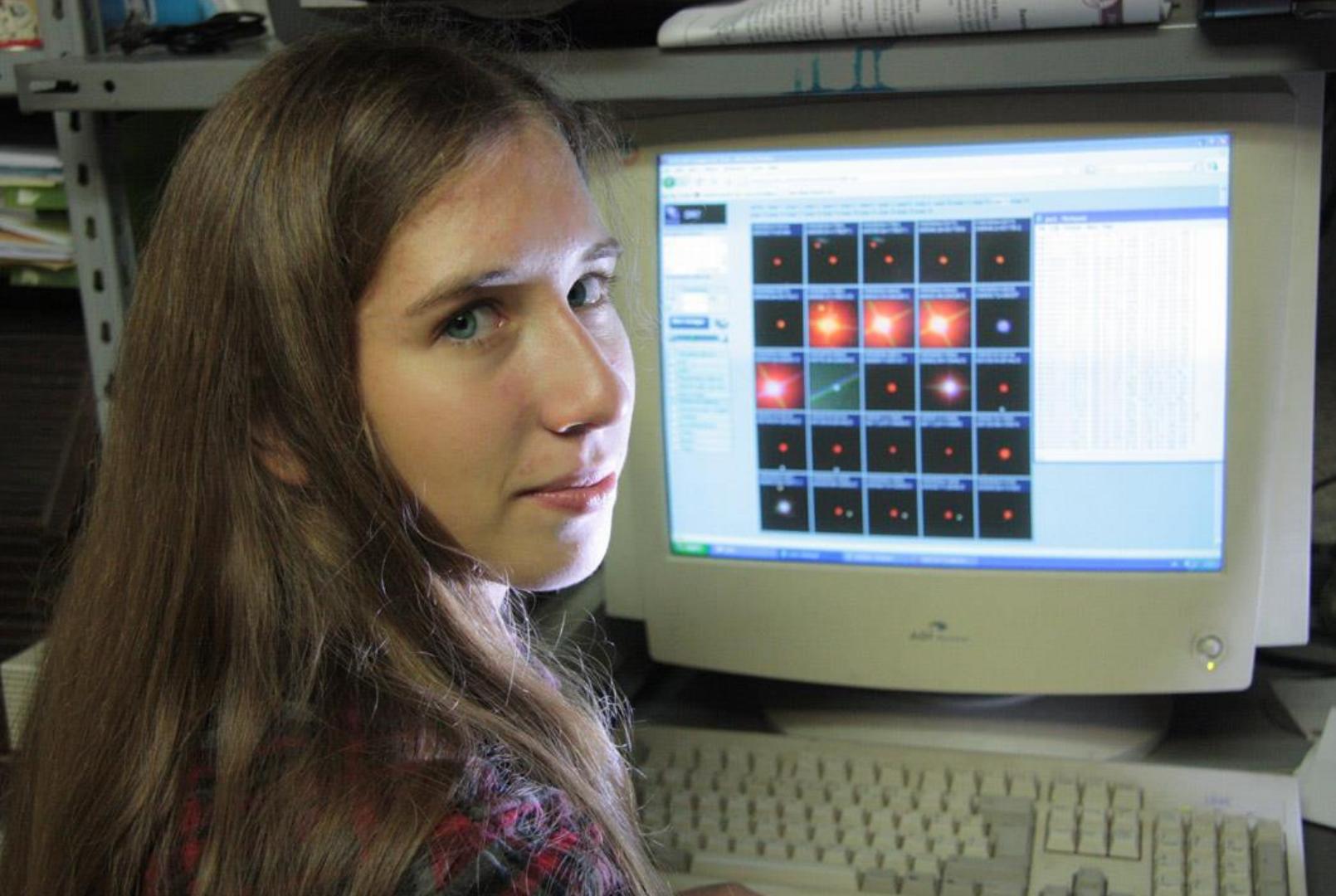
Astronomija

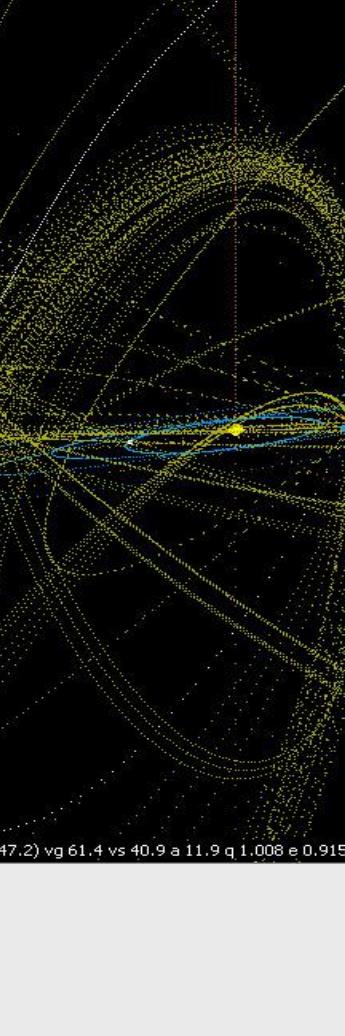
Edukacija



Astronomičko društvo Višnjan









# Program 2016.

- Školski klubovi istraživača: Novigrad, Marčana, Višnjan  
Explorers Clubs, (1.-4.r. "Lisice", 5.-8.r. "Istrazivaci")
- Šumski vrtić – Sci – Waldkindergarten "Cuvete"
- Astronomy Nights
- Projekt "ZA", edukacija nastavnika i mentora
- "Explora" - Radio program (HR)
- "Pod zvijezdama" – Radio program (Radio Istra)

## SUMMER SCHOOLS:

- Youth Science Camps (YSC I, YSC II, YSC III)
- VSA - Visnjan School of Astronomy
- S<sup>3</sup> – Summer School of Science
- CAMPUS - per le eccellenze scientifiche (I. II.) CNI



# I DALJE NAM JE CILJ:



Motivirati, odgajati i podupirati djecu, da izraze svoju darovitost, te da "izrastu" u eksperte, edukatore i lidere sposobne stvarati i upravljati svijetom koji dolazi.

"Budi promjena koju želiš vidjeti u svijetu."

*Mahatma Gandhi*



Zvjezdarnica Višnjan

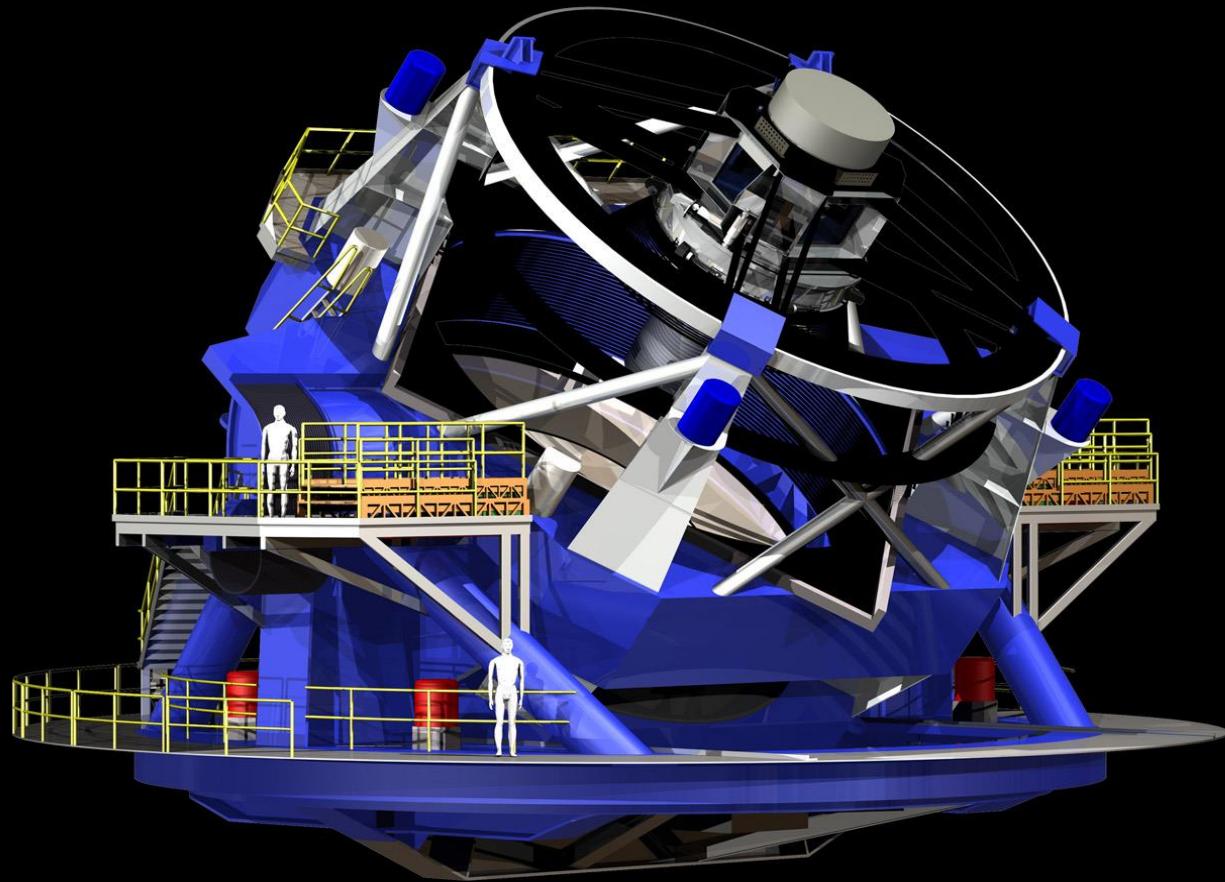
Astronomsko društvo Višnjan

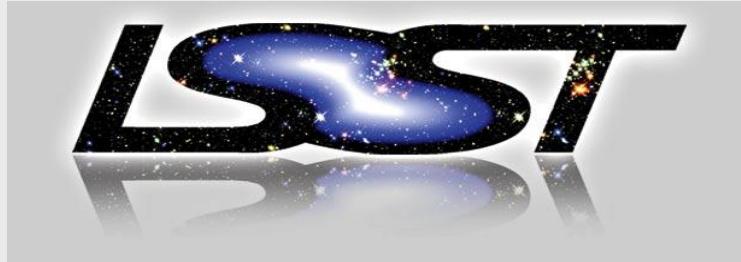
Znanstveno edukacijski centar Višnjan

Klub istraživača EXPLORA

# Zahvaljujem na pažnji!

*korado@astro.hr*





# Dr. Mario Juric

University of Washington, Professor of Astronomy  
Large Synoptic Survey Telescope, Data Management  
Project Scientist

Princeton University, Ph.D., Astrophysical Sciences (2007)

Institute for Advanced Study, Postdoctoral Member (2006 – 2009)

Harvard University, Hubble Fellow (2009 – 2011)

LSST/AURA, Associate Scientist (2012 – 2014)





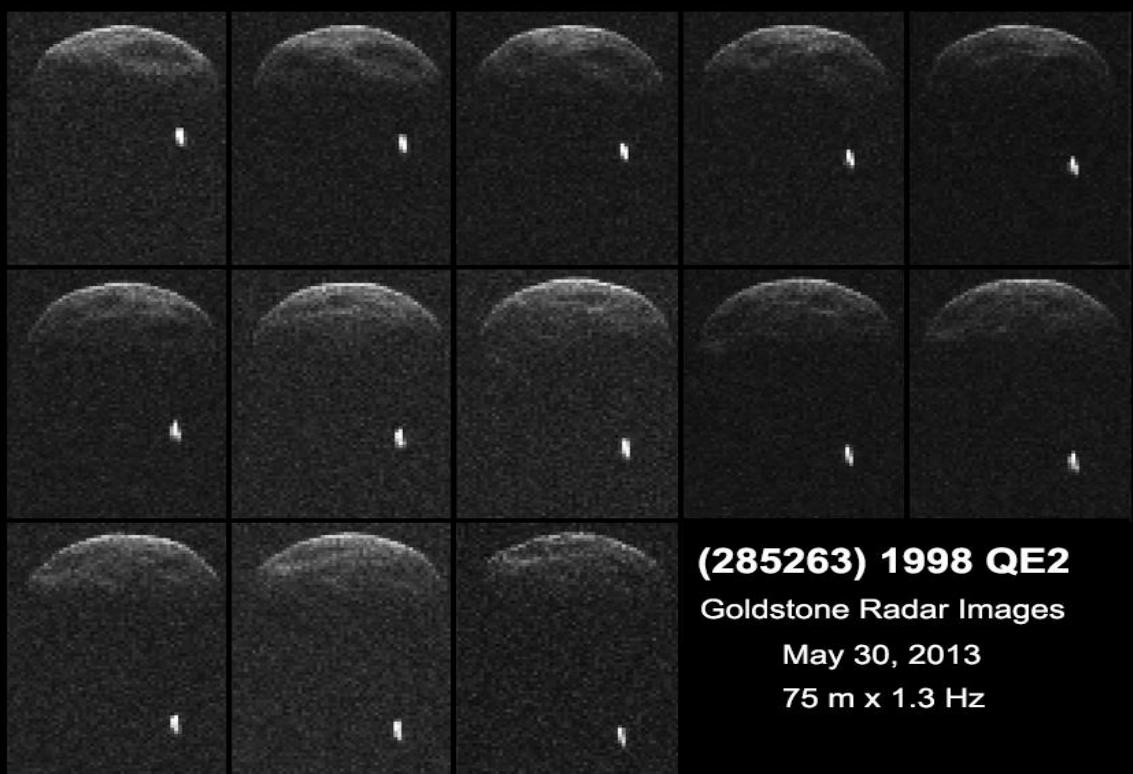
# Dr. Marina Brozović

- Duke University
- Fermi Laboratory
- CALTECH – 200
- JPL - Pasadena



Fermi Lab. days

[www.youtube.com/watch?v=ZVcwCx\\_uN6M](http://www.youtube.com/watch?v=ZVcwCx_uN6M)



**(285263) 1998 QE2**  
Goldstone Radar Images

May 30, 2013  
75 m x 1.3 Hz



# Dr. Marina Rejkuba

Head, User Support Astronomers Group

ESO - European Organisation for Astronomical Research in the  
Southern Hemisphere , Garching bei München

2002. - PhD in Physics at Pontificia Universidad Católica de Chile

1998 . graduated in Physics from the University of Zagreb

1996.-1998. Asiago Observatory, Italy

ESO – VLT, Sierra Paranal

ESO ALMA COFUND Fellow at Argelander Institut for Astronomy,  
Bonn, Germany

Adjunct Assistant Professor at Department of Physics,  
Faculty of Science, University of Zagreb, Zagreb, Croatia

Jan/2008 – Jan/2010:  
CARMA Postdoctoral Scholar, California Institute of Technology  
(Caltech), Pasadena, CA, USA

Oct/2004 – Dec/2007:  
Max-Planck Institut für Astronomie (MPIA), University of Heidelberg,  
Heidelberg, Germany , (PhD; graduated with "magna cum laude")

Feb/2003 – Apr/2004:  
Princeton University Observatory, Peyton Hall, Princeton, NJ,  
USA & Department of Physics,

Faculty of Science, University of Zagreb, Zagreb, Croatia  
(Diploma; graduated with best grade (5 out of 5);  
average grade during studying 4.372 out of 5)



Dr. Vernesa Smolčić

# MIT - GRADECÉK GROUP

## Laboratory for Nanophotonics and Electronics

Principal Investigator : Thomas Lord Associate Professor of Materials Science and Engineering

### **2004-2006: Postdoctoral Fellow**

Professor Charles M. Lieber group, Department of Chemistry and Chemical Biology, Harvard University (Cambridge, Massachusetts)

### **2004: Research Associate**

Institute of Quantum Electronics and Photonics, Swiss Federal Institute of Technology (Lausanne, Switzerland), Professor Marc Ilegems

### **2003: PhD in Physics**

Interdisciplinary Center of Electron Microscopy, Swiss Federal Institute of Technology (Lausanne, Switzerland)

### **1999-2003: Graduate Student**

Interdisciplinary Center of Electron Microscopy, Swiss Federal Institute of Technology (Lausanne, Switzerland), Professor Pierre Stadelmann

### **1999: Diploma in Physics**

Department of Physics, Faculty of Science, University of Zagreb (Zagreb, Croatia)

### **1999: Undergraduate Student**

Laboratory for Thermal Conductivity Investigation, Institute of Physics (Zagreb, Croatia)

### **1998-1999: Research Assistant**

Laboratory for Structural Investigation, Department of Physics, Faculty of Science, University of Zagreb (Zagreb, Croatia)



**Dr. Silvija Gradecek**

# Dr. Slaven Garaj



**NUS**  
National University  
of Singapore



## Slaven Garaj :: Research

[[Slaven@Harvard.edu](mailto:Slaven@Harvard.edu): ~ / [Home](#) / [Research](#) / - ]

### Review Articles

- V. Brouet, H. Alloul, S. Garaj, L. Forro: NMR Studies of Insulating, Metallic, and S Correlations and Jahn-Teller Distortions, to appear in Springer Review Series.
- Andrzej Sienkiewicz, Marek Jaworski, Slaven Garaj, Laszlo Forro, Charles P. Sch Biophysics: from Rapid Mixing Stopped-Flow to High-Hydrostatic Pressure ESR, C
- L. Forro, J-P. Salvetat, J.-M. Bonard, R. Bacsa, N. H. Thompson, S. Garaj, L. Thie Degiorgi, A. Bachtold, C. Schonenberger, S. Pekker, K. Hernadi: Electronic and m Science and Application of nanotubes, 297-320, ed. Tomanek and Enbody (Kluwer 2000).

### Patents

- Patent Number: [WO03023806](#), FIELD ELECTRON EMITTING DEVICE, Publication

### Peer-reviewed Articles

#### Strongly Correlated Electron Systems

- F. Simon, A. Janossy, T. Feher, F. Muranyi, S. Garaj, L. Forro, C. Petrovic, S. Bu Field Induced Density of States in Superconducting MgB<sub>2</sub>: Measurement of Condu cond-mat/0302620
- Slaven Garaj, Takashi Kambe, Laszlo Forro, Andrzej Sienkiewicz, Motoyasu Fujii TDAE-Ce<sub>0</sub> organic ferromagne, Phys. Rev. B 68, 144430 (2003)
- T. Kambe, S. Garaj, L. Forro, M. Fujiwara, K. Oshima: Temperature induced de-po 697-698 (2003).
- V. Brouet, H. Alloul, S. Garaj, and L. Forro: Persistence of molecular excitations in metal to insulator transition at high temperatures, Phys. Rev. B 66, 155124 (2002).
- V. Brouet, H. Alloul, S. Garaj, and L. Forro: Gaps and excitations in fullerides with K<sub>4</sub>C<sub>60</sub>, Phys. Rev. B 66, 155122 (2002).
- Ferenc Simon, Slaven Garaj, and Laszlo Forro: Comment on "Low Temperature Mg Polymers", Phys. Rev. Lett. 87, 12973 (2001).
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- V. Brouet, H. Alloul, Thien-Nga Le, S. Garaj, and L. Forro, Role of Dynamic Jahn-T Studied by NMR, Phys. Rev. Lett. 86, 4680-4683 (2001).

#### Nanostructures

- Le Thien-Nga, Klara Hernadi, Edina Ljubovic, Slaven Garaj, and Laszlo Forro: Mech Nanotubes from Catalytic Particles, *Nano Lett.* 2, 1349 - 1352 (2002)

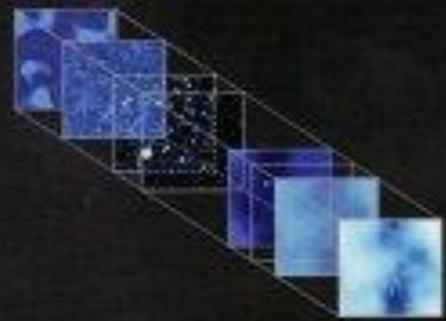


university of  
groningen

Faculty of Mathematics  
and Natural Sciences

Institute for Advanced  
Computing Sciences

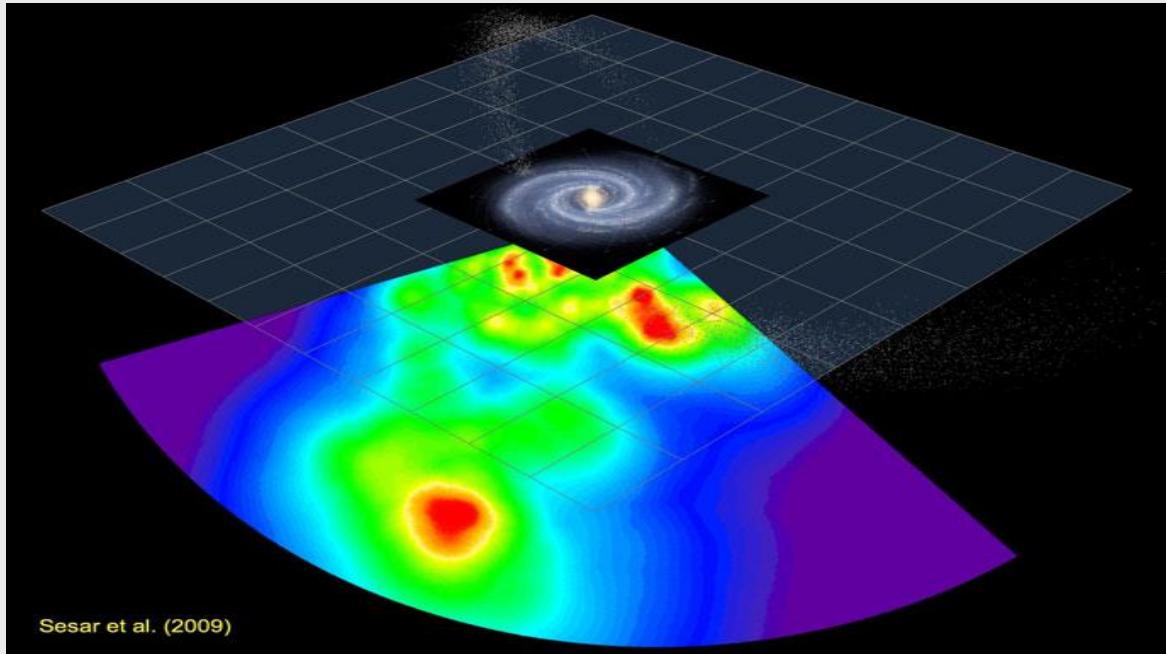
## Cosmological 21cm experiments: Searching for a needle in a haystack



Dr. Vibor Jelić

Netherlands Institute for  
Radio Astronomy (ASTRON)  
member of the LOFAR-EoR

Variability and outer halo structure using RR Lyrae stars



Dr. Branimir Sesar

University of Washington,  
Seattle

# Ana Bonaca

- Yale University



# Aleksandar Cikota

ESO - European Southern  
Observatory, München



# Stefan Cikota

Swiss Space Systems Holding SA  
Payerne, CH