CURRICULUM VITAE – MATIJA ĆUK

May 26th, 2012

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Degrees

2002-2005 Ph. D. (Astronomy) Cornell University
Thesis title: "Dynamics and Origin of the Irregular Satellites of the Giant Planets" (Graduate Adviser: J. A. Burns).
1999-2002 Master of Science (Astronomy), Cornell University
1995-1999 Diploma in Astrophysics (B. Sc. equivalent), University of Belgrade, Serbia.

Employment

Sep 2011- Principal Investigator, SETI Institute
Sep 2011-June 2012 Postdoctoral Researcher, Harvard University
Nov 2009-May 2011 Clay Fellow, Smithsonian Astrophysical Observatory
May 2008-Nov 2009 Daly Postdoctoral Fellow, Harvard University
Sep 2006-May 2008 CITA National Fellow, U. of British Columbia
Jan 2005-Aug 2006 Postdoctoral Research Associate, U. of British Columbia

Prizes and Awards

2007 Clay Postdoctoral Fellowship, Smithsonian Astrophysical Observatory
2007 Daly Postdoctoral Fellowship, Harvard University
2006 Canadian Institute for Theoretical Astrophysics National Fellowship
2004 Eleanor York prize for public service in astronomy (Cornell U.)
2002 AAS Division of Dynamical Astronomy Student Stipend
1999 Zaharije Brkić award (astronomy graduate of the year, Belgrade U.)

Funded Research Grants

Orbital Evolution of Outer Solar System Satellites.
NASA Outer Planets Research Program
Sep 2011 – Sep 2014. Role: PI

Orbital Dynamics of Small Bodies in the Inner Solar System.
NASA Planetary Geology and Geophysics Program
Selected May 2012, 3-year duration. Role: PI

Advising Experience

Senior thesis co-adviser for **Firth M. McEachern**, Harvard class of '09 (together with Professor Sarah T. Stewart). Mr. McEachern's thesis was awarded Hoopes Prize, and became a basis for a refereed paper in *Icarus*.

Community Service

2012 Elected Vice-Chair of the Division of the Dynamical Astronomy of the AAS for the July 2012 – June 2013 term
2009-2010 Local Organizing Committee Co-Chair, 2010 Meeting of the AAS Division on Dynamical Astronomy in Boston, Massachusetts
2007-2009 Committee Member, Division on Dynamical Astronomy of the American Astronomical Society

Past Peer Review Duties

Reviewer for *Icarus, The Astronomical Journal, The Astrophysical Journal, Science, Nature, Nature Geophysics, Monthly Notices of the Royal Astronomical Society, Journal of Geophysical Research – Planets, Meteoritics and Planetary Science, Astronomy and Astrophysics, Earth and Planetary Science Letters* and other. Panelist for NASA's Outer Planets Research and Planetary Geology and Geophysics programs.

Recent and Upcoming Invited Talks

2012 DDA Meeting (Mount Hood, OR), May 10, 2012. Title: Orbital Evolution of Multiple-Moon Systems

Northwestern University (Evanston, IL), November 8, 2011. Title: Resonances and the Angular Momentum of the Earth-Moon System

PUBLICATION LIST

Refereed Research Papers

Chronology and sources of lunar impact bombardment.
M. Ćuk. *Icarus* **218**, 69-79 (2012).

Rebuttal to the Comment by Malhotra and Strom on "Constraints on the source of lunar cataclysm impactors."
M. Ćuk, B. J. Gladman and S. T. Stewart. *Icarus* **216** 363–365 (2011).

Lunar shape does not record a past eccentric orbit.
M. Ćuk. *Icarus* **211**, 97–100 (2011).

Dynamical evolution of the Hungaria asteroids.
F. M. McEachern, M. Ćuk, and S. T. Stewart. *Icarus* **210**, 644–645 (2010).

Orbital evolution of small binary asteroids.
M. Ćuk and D. Nesvorný. *Icarus* **207**, 732–743 (2010).

Constraints on the source of lunar cataclysm impactors.
M. Ćuk, B. J. Gladman and S. T. Stewart. *Icarus* **207**, 590–594 (2010).

Current bombardment of the Earth-Moon system.
J. Gallant, B. J. Gladman and M. Ćuk. *Icarus* **202**, 371–382 (2009).

The fate of primordial lunar Trojans.
M. Ćuk and B. J. Gladman. *Icarus* **199**, 237–244 (2009).

Excitation of lunar eccentricity by planetary resonances.
M. Ćuk. *Science* **318**, 244 (2007).

Formation and destruction of small binary asteroids.
M. Ćuk. *The Astrophysical Journal* **659**, L57–L60 (2007).

Irregular satellite capture during planetary resonance passage.
M. Ćuk and B. J. Gladman. *Icarus* **183**, 362–372 (2006).

Effects of thermal radiation on the dynamics of binary NEAs.
M. Ćuk and J. A. Burns. *Icarus* **176**, 418–431 (2005).

Constraints on the orbital evolution of Triton.
M. Ćuk and B. J. Gladman. *The Astrophysical Journal* **626**, L113–L116 (2005).

Resonances near the orbit of 2003 VB_{12} (Sedna).
M. Ćuk. *Proceedings of IAU Colloquium 197* (Z. Knežević and A. Milani, Eds.), Cambridge University Press, pp.341–348 (2005).

On the secular behavior of irregular satellites.
M. Ćuk and J. A. Burns. *The Astronomical Journal* **128**, 2518–2541 (2004).

Chaos and the effects of planetary migration on the orbit of S/2000 S5 Kiviuq.
V. Carruba, D. Nesvorný, J. A. Burns, M. Ćuk and K. Tsiganis. *The Astronomical Journal* **128**, 1899–1916 (2004).

Gas-drag-assisted capture of Himalia's family.
M. Ćuk and J. A. Burns. *Icarus* **167**, 369–381 (2004).

Future Papers

An erosive impact onto a fast-spinning Earth produces a Moon derived from Earth's mantle.
M. Ćuk and S. T. Stewart. To be submitted to *Science*.

On the long-term stability of horseshoe coorbitals.
M. Ćuk, D. P. Hamilton and M. J. Holman. To be submitted to *MNRAS*.

Orbital evolution of Haumea's satellites.
M. Ćuk, D. Ragozzine and D. Nesvorný. In preparation for *Astronomical J.*.

Invited Papers

Kick for the cosmic clockwork.
M. Ćuk, *Nature Geoscience* **5**, 7–8 (2012).

Irregular satellites of the giant planets.
P. D. Nicholson, M. Ćuk, S. S. Sheppard, D. Nesvorný, and T. V. Johnson. *The Solar System Beyond Neptune* (Barucci, Boehnhardt, Cruikshank and Morbidelli, Eds.), Univ. of Arizona Press, Tucson (2008).