

## CURRICULUM VITAE

### PERSONAL DETAILS

Surname: Kaňuchová  
First name: Zuzana

### OBJECTIVE

- study of the effects of energetic ions irradiation on solid materials of planetology interest – mainly by experimental approach and spectroscopic techniques in ultraviolet, visible and near-infrared spectral range, and Raman spectroscopy
- study of atomic and molecular spectra in the near-infrared spectral range
- study of physical characteristics of Near Earth Objects
- basic research of the meteor streams. Focus on the study of the inner structure of the meteor streams and their dynamical evolution
- photometric observations of the minor bodies of the Solar system

### FORMAL EDUCATION

- 2008            **PhD degree** in Astronomy, Comenius University in Bratislava, The Slovak Republic
- 2003 – 2007   **PhD Study of Astronomy**  
nursery: Astronomical Institute of Slovak Academy of Sciences  
thesis: The structure of the meteor streams Perseids and Geminids  
supervisor: Doc. RNDr. Ján Svoreň, DrSc.  
supervisor expert: RNDr. Luboš Neslušan, CSc.
- 2003            **M. Sc. degree** in Astronomy and Astrophysics – Pavol Jozef Šafárik University in Košice, The Slovak Republic
- 2001            **B. Sc. degree** in Physics - Pavol Jozef Šafárik University in Košice, The Slovak Republic

### WORK EXPERIENCE

01/01/2009 – present

junior researcher, Department of the Interplanetary Matter,  
Astronomical Institute, Slovak Academy of Sciences

01/15/2014 – 07/14/2014 – fellowship at LESIA – l'Observatoire de Paris, EU/FP7  
NEOShield

06/01/2013 – 09/30/2013 - fellowship at Catania Astrophysical Observatory,  
Experimental Astrophysics Laboratory, Project VAMDC (Virtual  
Atomic and Molecular Data Center).

06/01/2013-09/30/2013 – fellowship at Catania Astrophysical Observatory,  
Experimental Astrophysics Laboratory, Project VAMDC (Virtual  
Atomic and Molecular Data Center).

05/01/2012-08/31/2012 – fellowship at Catania Astrophysical Observatory,  
Experimental Astrophysics Laboratory, Project VAMDC (Virtual  
Atomic and Molecular Data Center).

05/01/2011-08/31/2011 – fellowship at Catania Astrophysical Observatory,  
Experimental Astrophysics Laboratory, Project VAMDC (Virtual  
Atomic and Molecular Data Center).

09/01/2008 – 12/31/2010

Postdoctoral fellowship, Italian National Institute for Astrophysics -  
Catania Astrophysical Observatory, Experimental Astrophysics  
Laboratory

09/01/2005 – 12/31/2008

research assistant, Department of the Interplanetary Matter,  
Astronomical Institute, Slovak Academy of Sciences

2005 – 2008

lecturer (Astronomical Practices), Pavol Jozef Šafárik University  
in Košice; Faculty of Science

## SKILLS

Language: Slovak (native), English (advanced), Italian (advanced)

Computer: Excel, Origin, Opus

Programming: Fortran, Pascal (basic)

## OTHER

- active popularization of the astronomy (the member of the projects of the Slovak Research and Development Agency)
- member of the IAU Working Group of Meteor Shower Nomenclature for 2012-2015
- the member of the Local Organizing Committee for:
  - "The A-star Puzzle", 224<sup>th</sup> IAU Symposium, Poprad 8– 13 July 2004;
  - European Symposium of the Occultation Projects 2007, Astronomical Institute SAS, Tatranská Lomnica, 24 –29 August 2007.

- “From Interacting Binaries to Exoplanets”, 282<sup>nd</sup> IAU Symposium, Tatranská Lomnica 18– 22 July 2011
- COST Action CM0805 - Third Annual Meeting THE CHEMICAL COSMOS Understanding Chemistry in Astronomical Environments, Catania, 2-5 October, 2012.

2014 August 16

Zuzana Kaňuchová

**APPENDIX:**

1. List of papers

## APPENDIX

### List of papers

1. KAŇUCHOVÁ, Z., SVOREŇ, J.: 2014, Southern Taurids in the IAU MDC Database. Taurid complex. *Contrib. Astron. Obs. Skalnaté Pleso* **44**, 109-118
2. PERNA, D., ALVAREZ-CANDAL, A., FORNASIER, S., KAŇUCHOVÁ, Z., GIULIATTI WINTER, S., VIERIA NETO, E., WINTER, O.: 2014, The triple near-Earth asteroid (153591) 2001 SN263: an “ultra-blue”, primitive target for the Aster space mission. *Astronomy & Astrophysics* **568**, L6
3. KAŇUCHOVÁ, Z., BARATTA, G.A.: 2014, Micro-Raman spectroscopy of meteorite Košice. In T.J. Jopek, F.J.M. Rietmeijer, J. Watanabe, I.P. Williams (Eds.): *Meteoroids 2013*, Proceedings of the International Conference held in Poznań, Poland, August 26-30, 2013. A.M. University Press, p. 141-146
4. NESLUŠAN, L., KAŇUCHOVÁ, Z., TOMKO, D.: 2014, The ecliptic-toroidal structure of the meteor complex of comet 96P/Machholz. . In T.J. Jopek, F.J.M. Rietmeijer, J. Watanabe, I.P. Williams (Eds.): *Meteoroids 2013*, Proceedings of the International Conference held in Poznań, Poland, August 26-30, 2013. A.M. University Press, p. 235-242
5. JOPEK, T.J. , KAŇUCHOVÁ, Z.: 2014, Current status of the IAU MDC Meteor Showers Database. In T.J. Jopek, F.J.M. Rietmeijer, J. Watanabe, I.P. Williams (Eds.): *Meteoroids 2013*, Proceedings of the International Conference held in Poznań, Poland, August 26-30, 2013. A.M. University Press , p. 353-364
6. KAŇUCHOVÁ, Z.; SVOREŇ, J.: 2013, Meteoroids of 1P/Halley - the list of photographic orbits. *Contrib. Astron. Obs. Skalnaté Pleso* **43**, 135-141
7. ALLODI, M. A.; BARAGIOLA, R. A.; BARUCCI, M. A.; BLAKE, G.A.; BODUCH, P.; BRUCATO, J.; CONTRERAS, C.; CUYLLE, S. H.; FULVIO, D.; GUDIPATI, M. S.; IOPPOLO, S.; KAŇUCHOVÁ, Z.; LIGNELL, A.; LINNARTZ, H.; PALUMBO, M. E.; RAUT, U.; ROTHARD, H.; SALAMA, F.; SAVCHENKO, E.; SCIAMA-O'BRIEN, E.; STRAZZULLA, G.: 2013, Complementary and Emerging Techniques for Astrophysical Ices Processed in the Laboratory. *Space Science Reviews* **180**, p. 101-175
8. JOPEK, T.; KAŇUCHOVÁ, Z.: 2013, New Meteor Showers Recognized. In Electronic telegram: *International Astronomical Union - Central bureau for astronomical telegrams*, no. **3703**, 1J
9. NESLUŠAN, L.; KAŇUCHOVÁ, Z.; TOMKO, D.: 2013, The meteor-shower complex of 96P/Machholz revisited. *Astronomy & Astrophysics* **551**, A87
10. KAŇUCHOVÁ, Z., SVOREŇ, J.: 2012, Northern Taurids in the IAU MDC Database. *Contrib. Astron. Obs. Skalnaté Pleso* **42**, p. 115-124
11. KAŇUCHOVÁ, Z., BRUNETTO, R., MELITA, M., STRAZZULLA, G.: 2012, Space weathering and the color indexes of minor bodies in the outer Solar System. *Icarus*, **221**, p. 12-19
12. TOTH, J.; BOROVIČKA, J.; IGAZ, A.; SPURNY, P.; KORNOS, L.; HALODA, J.; OZDIN, D.; POVINEC, P. P.; SYKORA, I.; VEIS, P.; KOHOUT, T.; SVOREN, J.; HUSARIK, M.; KANUCHOVA, Z.; VERES, P.; PORUBCAN, V.: 2012, The Košice Meteorite — Recovery and

- Analyses. *Asteroids, Comets, Meteors 2012*, Proceedings of the conference held May 16-20, 2012 in Niigata, Japan. LPI Contribution No. **1667**, id.6325
13. BARATTA, G. A.; FULVIO, D.; GAROZZO, M.; KANUCHOVA, Z.; PALUMBO, M. E.; SPINELLA, F.; STRAZZULLA, G.: 2012, Sulfur and carbon bearing molecules on the Galilean moons. *Memorie della Societa Astronomica Italiana Supplement*, **20**, p.94
  14. CHIORNY, V.; GALÁD, A.; PRAVEC, P.; KUŠNIRÁK, P.; HORNOCH, K.; GAJDOŠ, Š.; KORNOŠ, L.; VILÁGI, J.; HUSÁRIK, M.; KAŇUCHOVÁ, Z.; KRIŠANDOVÁ, Z.; HIGGINS, D.; PRAY, D. P.; DURKEE, R.; DYVIG, R.; REDDY, V.; OEY, J.; MARCHIS, F.; STEPHENS, R. D.: 2011, Absolute photometry of small main-belt asteroids in 2007-2009. *Planetary and Space Science*, **59**, Issue 13, p. 1482-1489
  15. KAŇUCHOVÁ, Z., BARATTA, G.A., GAROZZO, M., STRAZZULLA, G.: 2011, Space weathering of asteroidal surfaces. Influence on the UV-Vis spectra. *Memorie della Societa Astronomica Italiana Supplement*. **16**, p. 130
  16. GAROZZO, M., LA ROSA, L., KAŇUCHOVÁ, Z., IOPPOLO, S., BARATTA, G. A., PALUMBO, M.E., STRAZZULLA, G.: 2011, The influence of temperature on the synthesis of molecules on icy grain mantles in dense molecular clouds. *Astronomy & Astrophysics* **528**, A118
  17. SVOREŇ, J., KRIŠANDOVÁ, Z., KAŇUCHOVÁ, Z.: 2011, Taurids – the list of photographic orbits. *Contrib. Astron. Obs. Skalnaté Pleso*, **41**, p. 23-34
  18. ANTONINI, P., BEHREND, R., COLAS, F., LECACHEUX, J., GONCALVES, R., STARKEY, D., MANZINI, F., REDDY, V., HAMANOWA, H., HAMANOWA, H., NAVES, R., HUSÁRIK, M., KAŇUCHOVÁ, Z., KRIŠANDOVÁ, Z., PIKLER, M., PRAVEC, P., KUŠNIRÁK, P., POLLOCK, J., DURKEE, R., VILÁGI, J., GAJDOŠ, Š., GALÁD, A., VEREŠ, P., REICHART, D., IVARSEN, K., HAISLIP, J., LA CLUYZE, A., MARCHIS, F., ENRIQUEZ, J.E., ALLAIN, M., EMERY, J.P.: 2011, Photometric observations of (3951) Zichichi. In Electronic telegram: *International Astronomical Union - Central bureau for astronomical telegrams*, no. **2698**, 1
  19. HUSARIK, M., KANUCHOVA, Z., KRISANDOVA, Z., PIKLER, M., PRAVEC, P., KUSNIRAK, P., POLLOCK, J., DURKEE, R., VILAGI, J., GAJDOS, S., GALAD, A., VERES, P., REICHART, D. E., IVARSEN, K. M., HAISLIP, J. B., LACLUYZE, A.: 2011, (3951) Zichichi. In Electronic telegram: *International Astronomical Union - Central bureau for astronomical telegrams*, no. **2698**, 2
  20. CHIORNY, V., GALÁD, A., PRAVEC, P., KUŠNIRÁK, P., HORNOCH, K., GAJDOŠ, Š., KORNOŠ, L., VILÁGI, J., HUSÁRIK, M., KAŇUCHOVÁ, Z., KRIŠANDOVÁ, Z., HIGGINS, D., PRAY, D., P. DURKEE, R., DYVIG, R., REDDY, V., OEY, J., MARCHIS, F., STEPHENS, R.D.: 2011, Absolute photometry of small main-belt asteroids in 2007-2009. In *Planetary and Space Science*, vol. **59**, p. 1482-1489. (2.344 - IF2010)
  21. KAŇUCHOVÁ, Z., BARATTA, G. A., GAROZZO, M., STRAZZULLA, G.: 2010, Space weathering of asteroidal surfaces: Influence on the UV-Vis spectra. *Astronomy & Astrophysics* **517**, p. 1-10
  22. KAŇUCHOVÁ, Z., BARATTA, G.A., GAROZZO, M., STRAZZULLA, G.: Absorption coefficient of polystyrene. In Vizier On-line Data Catalog: J/A + A/517/A60 <<http://cdsweb.u-strasbg.fr/cgi-bin/qcat?J/A+A/517/A60>>
  23. GAROZZO, M., FULVIO, D., KAŇUCHOVÁ, Z., PALUMBO, M.E., STRAZZULLA, G.: 2010, The fate of S-bearing species after ion irradiation of interstellar icy grain mantles. *Astronomy & Astrophysics* **509**, p. 1-9

24. PORUBČAN, V., SVOREŇ, J., HUSÁRIK, M., KAŇUCHOVÁ, Z.: 2009, Slovakian part of the European fireball network. In *Contributions of the Astronomical Observatory Skalnaté Pleso*. **39**, p. 101-108
25. SVOREŇ, J., SPURNÝ, P., PORUBČAN, V., KAŇUCHOVÁ, Z.: 2008, A New Bolide Station at the High Tatra Mountains. *Earth, Moon, Planets* **102**, p. 253-256
26. KAŇUCHOVÁ, Z.: 2007, Štruktúra meteorických rojov Perzeíd a Geminíd – *thesis*. Tatranská Lomnica, p. 1- 96
27. KAŇUCHOVÁ, Z., NESLUŠAN, L.: 2007, The parent bodies of the Quadrantid meteoroid stream. *Astronomy & Astrophysics*. **470**, p. 1123–1136
28. WARNER, B.D., PRAVEC, P., KUŠNIRÁK, P., HIGGINS, D., KAŇUCHOVÁ, Z., HUSÁRIK, M., GALÁD, A., VILÁGI, J.: 2007, Light curve analysis of (12735) 1991 VV1. *Minor Planet Bulletin*. **34**, no. 3, p. 83-84
29. SVOREŇ, J., SPURNÝ, P., PORUBČAN, V., KAŇUCHOVÁ, Z.: 2007, Pozorovanie bolidov na tatranských observatóriách AsÚ SAV. In *Meteorické správy* **28**, p. 3-11
30. KAŇUCHOVÁ, Z., SVOREŇ, J.: 2006, Geminids – the list of photographic orbits. In *Contributions of the Astronomical Observatory Skalnaté Pleso* **36**, p.181–193
31. COONEY, W., GROSS, J., TERRELL, D., PRAVEC, P., KUŠNIRÁK, P., PRAY, D., KRUGLY, Y., KORNOŠ, L., VILÁGI, J., GAJDOŠ, S., GALÁD, A., REDDY, V., DYVIG, R., NUDDS, S., KAŇUCHOVÁ, Z., PIKLER, M., HUSÁRIK, M., GREEN, D.W.E.:2006, Photometric observations of binary system (1717) Arlon. *Central Bureau for Astronomical Telegrams*. no. **504**
32. KAŇUCHOVÁ, Z.: 2006, O materskom telese Geminíd. *Meteorické správy*. **27**, p. 9 - 18.
33. SVOREŇ, J., KAŇUCHOVÁ, Z., JAKUBÍK, M.: 2006, Filaments within the Perseid meteoroid stream and their coincidence with the location of mean–motion resonances. *Icarus* **183**, p. 115–121
34. NESLUŠAN, L., KAŇUCHOVÁ, Z.: 2006, Kométa 96P/Machholz ako materské teleso meteorického roja Kvadrantíd. *Meteorické správy*. **27**, p. 1- 8
35. WARNER, B.D., PRAVEC, P., KUŠNIRÁK, P., KAŇUCHOVÁ, Z., HUSÁRIK, M., HIGGINS, D.: 2006, The light curve for the Hungaria asteroid 4232 Aparicio. *Minor Planet Bulletin*. **33**, no. 1, p. 24-25
36. KAŇUCHOVÁ, Z., SVOREŇ, J., NESLUŠAN, L.: 2005, The observed structures in the Perseid meteoroid stream in the range of photographic meteors. *Contrib. Astron. Obs. Skalnaté Pleso* **35**, p. 135-162
37. SVOREŇ, J., KAŇUCHOVÁ, Z.: 2005, Perseids - the list of photographic orbits. *Contrib. Astron. Obs. Skalnaté Pleso, Suppl. Ser.* **35**, p. 199-220
38. SVOREŇ, J., NESLUŠAN, L., KAŇUCHOVÁ, Z., PORUBČAN, V.:2005, A fine structure of the Perseid meteoroid stream. *Earth, Moon and Planets* **95**, p. 69–74
39. SVOREŇ, J., KAŇUCHOVÁ, Z., JAKUBÍK, M.: 2005, Vlákna Perzeíd - štatistika a modelovanie. *Meteorické správy*. **26**, p. 11-18
40. NESLUŠAN, L., RYCHTARČÍK, P., HUSÁRIK, M., ČERVÁK, G., KAŇUCHOVÁ, Z., JAKUBÍK, M.: 2005, Observations of asteroids in 2003. *Minor Planet Circular*. no. **53629**
41. SVOREŇ, J., KAŇUCHOVÁ, Z.: 2004, Jemná štruktúra prúdu Perzeíd a rezonancie s Jupiterom a Saturnom. *Meteorické správy* **25**, p. 1-10
42. KAŇUCHOVÁ, Z., SVOREŇ, J.: 2003, Denná a ročná variácia sporadických meteorov. *Meteorické správy* **24**, p. 1-11

2014 August 8

Zuzana Kaňuchová