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## CURRICULUM VITAE

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### CONTACT

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### PERSONAL INFORMATION

**Address:** Národní 1088, Úpice, 542 32, Czech Republic

### CURRENT POSITIONS

Senior Researcher, GAUSS Algorithmic, Slovákova 11, 60200, Brno  
Sauna Master, INFINIT MAXIMUS, Hrázní 4a, Brno - Kníničky

### PREVIOUS POSITIONS

Senior Developer, Oracle DBA: Infineon Technologies Trutnov, s. r. o.  
PhD study at Department of Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University Kotlářská 2, 611 37 Brno, CR  
Astronomical Institute of the Academy of Sciences of the Czech Republic, v.v.i., Freckle 298 251 65 Ondřejov, CR (25% duty )  
PhD study at Department of Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University Kotlářská 2, 611 37 Brno, CR

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### EDUCATION

**2011–2017:** Doctoral study program: Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University  
**2011:** Master degree obtained in program Theoretical Physics and Astrophysics (Spec.: Astrophysics), Faculty of Science, Masaryk University  
**2006–2011:** Expansion of specialization – courses on Faculty of Informatics, Masaryk University: Machine Learning and Data Mining,  $\LaTeX$ , UNIX; UNIX – Programming and System Management I–II  
**2008:** Bachelor degree obtained in program: Applied Physics (Spec.: Astrophysics), Faculty of Science, Masaryk University  
**2000:** Certified Specialist (DiS) degree obtained in program: Computer Science, SPŠE Pardubice  
**1992–1996:** Secondary school: COP Hronov

### QUALIFICATION

5+ years of experience with machine learning, 3+ years of experience with Spark and Big Data, 18+ years of experience with programming; 10+ years of experience with UNIX; 5+ years of experience with databases; 3+ years of experience in leading development team; working in international team.

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## WORK EXPERIENCE, INTERNSHIPS, SOLVED PROJECTS

**Academic year 2010/2011: Master thesis:** *Virtual Observatory & Data Mining*

Supervisor: RNDr. Petr Škoda, CSc.; Successfully defended in June 2011 (grade A).

- Development of Spectral Data Mining process for Be stars candidates.
- Performed Astronomical Data Mining experiments using Virtual Observatory protocols.
- Processed 200 000 spectra.

**May 2011:** Joint Workshop and Summer School: Astrostatistics and Data Mining in Large Astronomical Databases. La Palma, Canary Islands, Spain

**June – September 2010:** CERN Summer Student: Working on next generation collider CLIC<sup>1</sup> project

**January 2010:** EuroVO-AIDA<sup>2</sup> School 2010<sup>3</sup>

**April 2008:** IWSSP 2008<sup>4</sup>

**Academic year 2007/2008: Bachelor thesis:** *Data Mining from Astronomical Data*

Supervisor: Mgr. Filip Hroch, Ph.D.; Successfully defended in June 2008 (grade A).

- Semi-automatic process for spectral analysis and Blazars (AGN) discovery.
- Extended as project on Faculty of Informatics in course: Machine Learning and Data Mining<sup>5</sup>

**2000–2006:** Senior Developer, Oracle DBA: Infineon Technologies Trutnov, s. r. o. Working in Germany, USA and Malaysia. Passed many courses on PL/SQL, Oracle, C#, REFA, etc.

**1999** Developer: ABB Trutnov, s. r. o.

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## AWARDS AND RESULTS OF RESEARCH ACTIVITIES – PUBLICATIONS

Vážný, J.: *Non-linear optimization of the CLIC FFS*; CERN, Geneva, Switzerland, Sept. 2010<sup>6</sup>

Škoda, P.; Vážný, J.: *Data Mining of Be stars in VO*; Talk at IVOA Interoperability meeting KDD IG Session, Naples, 16th May 2011

Škoda, P.; Vážný, J.: *Data Mining of Be stars in VO*; Poster presented at the conference Astroinformatics 2011, 25-29th September 2011, Sorento, Italy

Škoda, P.; Vážný, J.: *Data Mining of Be stars in VO*; Poster will be presented at the conference ADASS 2011 Paris, France, 6-10 November

Vážný, J.: *Introduction into Astroinformatics*; Invited lecture on astronomical course, Vyškov 2011

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## OTHER RELEVANT INFORMATION

### SKILLS AND QUALIFICATIONS

- Language skills: English (Advanced), Chinese (Basic knowledge)

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<sup>1</sup>The Compact Linear Collider (CLIC) electron-positron Linear Collider in the post-LHC era

<sup>2</sup>Astronomical Infrastructure for Data Access project

<sup>3</sup>International School on technologies of Virtual Observatory: <http://cds.u-strasbg.fr/aidahandson2010/>

<sup>4</sup>International Workshop on Stellar System Physics: <http://astro.physics.muni.cz/iwssp2008>

<sup>5</sup>This project has been proposed to present on a conference, but this was not realized because of my work for CERN

<sup>6</sup>CERN internal document. Result of my 3 month project during CERN Summer Student Program

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- Administration and programming in UN\*X Like OS
  - Programming languages: Python, PL/SQL, C, C++, Fortran
  - Command interpreters and script languages: Bash, Awk, Octave, GNU Gnuplot, LaTeX, Matlab
  - Machine Learning and Data Mining skills

April 17, 2018