

# Aleš Podolník

## Curriculum Vitae

Prague, Czech Republic  
✉ ales+cv@podolnik.me

I like to do stuff.  
The stuff should not be boring.  
This haiku is bad.

### Work Experience

2012–present **Ph. D. student**, *Institute of Plasma Physics of the Czech Academy of Sciences*, Prague.

Data analysis from simulated plasma probe diagnostics and plasma-surface interaction using particle-in-cell model. Co-development of simulation code SPICE2 and SPICE3 (parallel Poisson equation solver, Fortran 95).

2011–2015 **Software engineer**, *4mobile s.r.o.*, Prague.

Developer of mobile applications and client server backend/frontend for domestic and international clients and in-house projects.

**BookJet Trafika Editor** – Server/client framework for e-book publication. Browser-based UI (Javascript – ExtJS) & PDF converter tool (ASP.net).

**Webview & JS applications** – *Groupe SEB* trade catalogue, *KPMG* form processing app.

**Native UI applications** – Children book for *Hallmark UK* (iOS), *KPMG* app port for Blackberry etc.

**Various proof of concept projects** – Adobe After Effects/Amazon AWS video rendering platform, augmented reality, image recognition.

### Non-profit Work

2014–2017 **Organizer**, *Matrix puzzlehunt*, Prague.

Team member and/or leader (2016–2017) of a small production team of Prague's largest puzzlehunt competition.

2007–2010 **Team leader**, *FYKOS*, Prague.

Chief organizer of physics correspondence course and competition for high school students. Managed a mid-sized team for 3 year-long rounds of the contest, 2 national rounds of on-site team contest Fyziklání, and several training camps for talented students.

2006–2018 **LOC and staff member**, *MFF UK*, *IPP CAS*, Prague, Brno.

Support staff at various conferences (SOFT 2017, FuseNet Ph. D. Event 2016) and university events (open days 2006–2010, Fyziklání and Náboj team contests 2007–2018). Team member at FYKOS.

### Education

2012–present **Ph. D. candidate in Physics of Plasmas and Ionized Media**, *Charles University*, Prague.

2009–2012 **Master's degree in Physics of Surfaces and Ionized Media**, *Charles University*, Prague.

2006–2019 **Bachelors's degree in General Physics**, *Charles University*, Prague.

abs. 2006 **Gymnázium se zaměřením na matematiku**, *Gymnázium Brno, tř. Kpt. Jaroše 14*, Brno.

## Publications

H-index 4 (as of 1/2019)

ORCID profile <https://orcid.org/0000-0003-1237-8812>

### Selected best

2018 Podolník A. et al., 3D particle-in-cell modeling of Langmuir probe effective collecting area in magnetized plasma, *Plasma Physics and Controlled Fusion*, <https://doi.org/10.1088/1361-6587/aac701>

2014 Dejarnac R., Podolník A. et al., Numerical evaluation of heat flux and surface temperature on a misaligned JET divertor W lamella during ELMs, *Nuclear Fusion*, <https://doi.org/10.1088/0029-5515/54/12/123011>

## Computer Skills

Web HTML, XML, CSS, Javascript (*ExtJS*, *jQuery*), PHP (*WordPress*), *ASP.net* (intermediate)

Databases MySQL/MS SQL (user)

Other Fortran 95, Matlab (advanced), C#, Python, Objective-C, Java (intermediate), lua, languages C/C++ (basics)

OS Windows (advanced), Linux (intermediate), OS X (user)

Software Matlab,  $\LaTeX$ , git, bash (user)

## Languages

Czech native speaker

English upper intermediate

French basics

German basic words and phrases only

## Interests

Science popularizing *Work with talented students at FYKOS and Výfuk.*

Puzzlehunts *Winner of several renowned Czech over-night outdoor events.*

Classical music *Opera listener and guitar player.*

Arduino *Tinkering with circuit boards.*

Art and architecture *Graduate of 2<sup>nd</sup> cycle elementary art school.*