Brief characteristics of an applicant in habilitation proceedings
At CTU in Prague

Applicant: Ing. Filip Křikava, Ph.D.

A) In pedagogical field
1) Number of PhD students for whom the applicant was appointed supervisor, or specialist supervisor and who successfully defended their PhD theses:
   0
2) Number of defended master/bachelor theses supervised by the applicant:
   4 diploma theses, 9 bachelor theses
3) Applicant's most prominent deed in the field of teaching:

   - Preparation of new contents and lecturing of the course Object-Oriented
     Programming based on the Scala programming language

4) Assessment of the applicant in the student Anketa questionnaire in the last 4 semesters:
   Summer 2020/21   1.33
   Winter 2020/21   1.32
   Summer 2019/20   -
   Winter 2019/20   1.34

B) In the field of creative activity
1) Three significant original outcomes of creative activity of arch. or art. realizations:
   Scientific publications:
   a) *Filip Křikava and Jan Vitek. Tests from Traces: Automated Unit Test Extraction for R.*
      In Proceedings of the 27th ACM International Symposium on Software Testing and Analysis (ISSTA), August 2018.
   b) *Alexi Turcotte, Aviral Goel, Filip Křikava and Jan Vitek. Designing Types for R, Empirically.*
      In Proceedings of the ACM Programming Languages 4, OOPSLA, Article 181, November 2020.
   c) *Filip Křikava, Heather Miller and Jan Vitek. Scala Implicits are Everywhere: A Large-scale Study of the Use of Scala Implicits in the Wild. In Proceedings of the ACM Programming Languages 3, OOPSLA, Article 163, October 2019.*

2) H-index with self-citations not included:
   5 (WoS), 7 (Scopus), 11 (Google Scholar, self-citations are included)

3) Number of citations WOS/Scopus/reactions of arch. work, self-citations not included:
    68 (WoS), 176 (Scopus), 420 (Google Scholar, self-citations are included)

4) Mobility (stays in a workplace abroad – place, duration and outcomes of the stay):
    - 11/2009 - 8/2013, CNRS - I3S, Université Nice - Sophia Antipolis, France, doctoral studies
    - 11/2013 - 5/2015: Postdoc, INRIA Lille SPIRALS team, under prof. Lionel Sentuirel
    - 9/2016 - 3/2017: Postdoc, Northeastern University, USA, PRL lab, under prof. Jan Vitek

5) Two most prominent grant projects of which the applicant was a recipient or co-recipient (applicant or co-applicant):

    - postdoc grant from INRIA Lille,

6) Example(s) of implementation of applicant's outcomes in practice:

    - genthat: https://github.com/PRL-PRG/genthat: A record-replay framework for the R programming language.

    - sigma: https://github.com/fikovnik/Sigma: An EMF model-manipulation framework for the Scala programming language

7) Most prominent recognition by community (incl. recognition in an arch. or art. competition):

    - artifact for the paper "Automated Unit Test Generation for R" (It is the only artifact receiving such an award this year. The artifact stood out and not only convinced the reviewers to grant the "Artifact Evaluated - Reusable" badge but also to nominate the artifact for the award. Out of the two artifacts nominated, your artifact again exceeded expectations.)

8) Most prominent service for the community:
    - 2015-2019 Co-Chair of Transformation Tool Contest (TTC) collocated with STAF
    - 2017-2019, Co-Chair committee member of CurryOn, collocated with ECOOP
    - 2020-2021, Co-chair of REBASE, collocated with SPLASH and ECOOP

In Prague, on Sep 22, 2021

Habilitation Committee:

Chair: **Members:**

prof. Pavel Tvrdík

Moeller

prof. Petr Tůma

prof. Jiří Barnat

prof. Pavol Návrat

prof. Anders