ITC Conference Grant
- APPLICATION FORM[1] -

Action number: CA20111

Applicant name: Viktor Bense

Conference Details

Conference title: 30th International Conference on Types for Proofs and Programs

Conference web-page: https://types2024.itu.dk/

Conference venue[2]: in-person

Conference start and end date: 10/06/2024 to 14/06/2024

Accepted contribution details

Title of the presentation: Strict syntax of type theory via alpha-normalisation

Type of the presentation: oral

Co-authors: Ambrus Kaposi, Szumi Xie

Other details of the presentation: -

Relevance of the Conference topic to the Action

Description of the relevance of the Conference to the Action (e.g., MoU objective, deliverable or WG task).

(max.500 word)

TYPES conference is the main European conference on topics of type systems for programming languages and proof assistants, with roughly 80-100 participants. This is a perfect place to receive feeback on the work in the topics of EuroProofNet COST Action, especially regarding WG 6.

Motivation and expected impact

Description of the applicant's motivation to participate in the conference and potential impact on the applicant's career.

(max.500 word)

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[1] This form is part of the application for a grant to present the work of the applicant at a conference. It is submitted to the COST Action MC via-e-COST. The Grant Awarding Coordinator coordinates the evaluation on behalf of the Action MC and informs the Grant Holder of the result of the evaluation for issuing the Grant Letter.

[2] For an online conference, specify virtual participation; for hybrid conferences, specify whether it is an in-person or virtual participation.

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The goal of WG 6 is to develop a theory of type theories. An abstract way to reason about type theories is when we work with intrinsically well-typed syntax quotiented by conversion. This representation is roughly halfway between the traditional syntax (using preterms and typing relations) and the abstract categorical frameworks. The computer formalisation of the intrinsic syntax faces extreme difficulties in terms of necessary proofs of well-typedness. This introduces lots of "administration", manually needed proof usually called 'transport hell'. My talk proposes novel solution to this problem which reduces the number of necessary proofs.

I am a first year PhD student, this is my first conference that I plan to attend. I hope to receive valuable feedback on my work and to further deepen my knowledge on this topic.