

## Research Grants for PhD students from the China Scholarship Council

Information Form (please read the guidelines carefully on the website [www-csc.utt.fr](http://www-csc.utt.fr))

Supervisor's name :  Given names :

Status (prof., assistant prof., ...) :

Laboratory :  Website address :

Institution :  Website address :

Scientific competence of the supervisor:

Pr. Pascal BERTHOMÉ is an expert in algorithmics and complexity.

Two major publications in the field proposed for the PhD :

1.
2.

Website address of the personal page :

**Supervisor's email :**

**Description of the research work proposed for a PhD** **Topic # (see list) :**

Title :

Subject :

Epistemic logics were created to represent knowledge, beliefs and reasoning. They are used in many fields (AI, security, privacy,...) to formalize knowledge, data collection, learning... However, to properly formalize probabilistic knowledge on which a lot of decisions are made, one needs to develop probabilistic epistemic logics based on imprecise probabilities. Yet, existing probabilistic epistemic logics rely mainly on exact probabilities that are not designed to talk about statistical knowledge based on confidence intervals. This project aims at filling this gap. To do so, it is necessary to develop probabilistic epistemic logics based on imprecise probabilities. Very few is done in that direction. The student will first have to study imprecise probabilities and understand how to axiomatize a probabilistic epistemic logic based on imprecise probabilities.

Keywords :

Expected collaborations :

Background required from the applicant :

Existence of a PDF file detailing the proposal ("yes" or "no") :

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