

HES-SO University of Applied Sciences and Arts Western Switzerland – Geneva is recruiting for the Geneva School of Business Administration in the International Business Management department a position of

**An assistant UAS (PhD student)
in computational mathematics and scientific computing, full-time (100%)
Non-permanent position of 12 months, renewable**

Topic: Numerical methods for Monge-Ampère equations and optimal control problems. The goal is to efficiently solve several, non-smooth, fully nonlinear equations using adaptive algorithms or machine learning. We explore various aspects of the approximation of the Monge-Ampère equation: adaptive mesh refinement with optimal error estimates, inverse problems using least-squares approaches, and solution to higher dimensional PDEs using deep neural networks.

In a dynamic academic environment, the position allows

- To work on a PhD project in the field of partial differential equations, scientific computing, and machine learning
- To work independently on a research topic

Mission

- Participate to research projects with the goal of obtaining of PhD degree
- Assist a professor in his/her teaching activities
- Prepare, proctor and grade exams

Profile:

- Master degree in applied mathematics, or computational science and engineering, or equivalent
- Strong interest for programming, algorithmic, and numerical analysis
- Ability to work in a team
- Flexibility, autonomy and organizational skills
- Written and spoken English skills

Characteristics of the position:

- The duration of this UAS contract is for 12 months, renewable up to four times
- The salary rate for an UAS assistant (PhD student) corresponds to a class 9 – annuity 2 persons holding a Master degree
- The PhD candidate will work both at the Haute Ecole de Gestion de Genève and at EPFL. She/he will be registered to the doctoral school of mathematics at EPFL. The candidate will be supervised by both Prof. Alexandre Caboussat (HEG, <http://campus.hesge.ch/caboussat>) and Prof. Marco Picasso (MATH, EPFL, <http://people.epfl.ch/marco.picasso>). PhD thesis diploma will be issued by EPFL
- The position is subject to admission to EPFL doctoral program of mathematics

Deadline for applications: April 15th, 2023
Starting date : June 1st, 2023 (but flexible)
Work place: Campus Battelle, 1227 Carouge and EPFL

The HES-SO Geneva/HEG is an equal opportunity employer.

Please submit your application (CV, cover letter, copies of diplomas, most recent grades, and the contact information of two references) by email only to alexandre.caboussat@hesge.ch. Incomplete applications or files that do not match the desired profil will not be taken into consideration. Please contact Prof. Alexandre Caboussat (alexandre.caboussat@hesge.ch) for any additional information.

Inquiry: Information regarding the job description, salary and working conditions can be requested from the HR department : raquel.pillco-vilchez@hesge.ch, tél. : +41 22 558 64 87.