

# Tom M. Ragonneau, Ph.D. Candidate

## Computational Mathematics, The Hong Kong Polytechnic University

✉ [tom.ragonneau@connect.polyu.hk](mailto:tom.ragonneau@connect.polyu.hk) 🏠 [ragonneau.github.io](https://ragonneau.github.io)

📍 TU834, The Hong Kong Polytechnic University, Kowloon Hong Kong, China ☎ (+852) 6995-7651

### Education

**Ph.D.**, The Hong Kong Polytechnic University, Hong Kong, China 2019–Present  
Supported by the [University Grants Committee](#) of Hong Kong under the [Hong Kong Ph.D. Fellowship Scheme](#).  
Supervised by Dr. [Zaikun Zhang](#) and co-supervised by Prof. [Xiaojun Chen](#).  
Subject of the dissertation: Model-based derivative-free optimization methods and software.

**M.Sc.**, Toulouse INP-ENSEEIH, Toulouse, France 2018–2019  
Graduated in [Performance in Software, Media, and Scientific Computing](#).

**M.Eng.**, Toulouse INP-ENSEEIH, Toulouse, France 2016–2019  
Graduated in High Performance Computing and Big Data.

**CPGE**, Carnot high-school, Dijon, France 2014–2016  
Two-year program of profound studies for acquiring elementary but crucial scientific knowledge.

### Working experience

**Research Assistant**, The Hong Kong Polytechnic University, Hong Kong, China 2019  
Early development of [PDFO](#), a Python and MATLAB software for using late Prof. M. J. D. Powell's derivative-free optimization solvers (including UOBYQA, NEWUOA, BOBYQA, LINCOA, and COBYLA).

**Trainee Engineer**, Axians Cloud Builder, Toulouse, France 2018  
Prediction of the load balancing of a computing cluster managed by a GPFS system via machine learning tools.

### Publications

#### Peer-reviewed journals

- [1] A deep learning approach for estimation of the nearshore bathymetry  
R. Benshila, G. Thoumyre, M. Al Najar, G. Abessolo Ondo, R. Almar, E. Bergsma, G. Hugonnard, L. Labracherie, B. Lavie, T. M. Ragonneau, S. Ehouarn, B. Vieublé, and D. Wilson  
*J. Coast. Res.* 95.sp1 (2020), pp. 1011–1015

### Presentations

- [1] PDFO: a cross-platform MATLAB/Python interface for Powell's derivative-free optimization solvers  
SIAM Conference on Optimization (OP21), online, July 21, 2021

### Teaching

**Revision Tutorial Sessions**, The Hong Kong Polytechnic University, Hong Kong, China 2020–2021  
Calculus, Probability & Statistics, and Linear Algebra.

**Examination Invigilations**, The Hong Kong Polytechnic University, Hong Kong, China 2019–Present  
Monitored examinations and marked assignments for various subjects.

### Languages

Mother tongue **French**  
Other languages

**English**  
**German**  
**Cantonese**

Understanding				Speaking				Writing	
Listening		Reading		Interaction		Production			
C2	Fluent	C2	Fluent	C1	Fluent	C1	Fluent	C1	Fluent
B1	Independent	B1	Independent	B1	Independent	A2	Basic	B1	Independent
A2	Basic	A1	Basic	A1	Basic	A1	Basic	A1	Basic

*Common European Framework of Reference for Languages (CEFR)*

### Personal interests

Science, technology, music, movies, hiking, scuba diving