



## A PERSONAL TOUR OF RESEARCH ISSUES ALONG HPC, CLOUD AND THE INTERNET SEMINAR



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## **ABSTRACT**

In this presentation, we cover two topics that may appear not to be interrelated, namely an "Optimized Containerization of HPC Job Schedulers based on Namespaces" for the first topic, and the second one is related to the EcoIndex metric, which corresponds to a model estimating the environmental impact of HTTP requests. The quest is both optimizing the server occupation in a cloud container-based system and measuring the gas emission of our Internet usage. Experimental results illustrate what we can do and at what price.

## **BIOGRAPHY**

Christophe Cérin has been a Professor of Computer Science at the Sorbonne Paris Nord University (formerly University of Paris 13), France, since 2005. His research interests are in high-performance computing, including grid, cloud, and edge computing. He is developing middleware, algorithms, tools, and methods for managing distributed systems. He is an IEEE Member. Award Recipient of the 2020 IEEE Technical Committee on Cloud Computing Research Innovation Award. Editorial Board Member of IEEE Transactions on Computers (IEEE TC). Associate Editor for Springer Journal of Cloud Computing. From September 2021, he will be joining Grenoble University for works (Délégation CNRS) connected with those realized in the frameworks of the Edge Intelligence research program and Datamove project. His recent industrial experience includes serving as local chair for the FogSLA project (Nokia, Smile, CGI, Gandi, Sorbonne université, Paris 13) on Fog orchestration. His past industrial project was with the Wolphin project as well as for the Wendelin project related to Cloud and Big-Data, and also with the Resilience project related to Cloud Computing. He is also working on the environmental impact of HTTP requests.

See: <a href="https://theconversation.com/ecoindex-que-vaut-cet-outil-qui-mesure-le-score-environnemental-des-sites-web-203836">https://theconversation.com/ecoindex-que-vaut-cet-outil-qui-mesure-le-score-environnemental-des-sites-web-203836</a>



