

# OPENQUAKE

GEM  
GLOBAL EARTHQUAKE MODEL

10<sup>TH</sup> ANNIVERSARY

2020



**A DECADE OF SERVING OQ ENGINE TO ANALYZE SEISMIC HAZARD & RISK TO  
REDUCE LOSS OF LIVES AND PROPERTIES FOR A SAFER AND RESILIENT FUTURE.**



## THE OPENQUAKE 10 YEAR ANNIVERSARY WEBINAR

22ND OF OCTOBER 2020  
1600 - 1730 CEST

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### Background

The OpenQuake Engine is at the foundation of GEM's hazard and risk assessment capability and is a hallmark of GEM's open framework and global collaboration network. Since its first release 10 years ago, the OQ Engine has become the primary analysis tool used by a wide range of scientists and engineers worldwide for the analysis of earthquake hazard and risk at scales from site-specific and urban through to national, regional and global.

It is the engine behind the development of the global mosaic set of earthquake hazard and risk and models, and the delivery of a comprehensive global assessment of earthquake hazard and risk released in December 2018.

Here are a few examples of OpenQuake's impact:

- GEM's IT team has issued 78 releases of the OQ Engine since 2010.
- The OpenQuake Engine has been cited more than 450 times in peer-reviewed studies and conference proceedings since 2014.
- GEM staff and partners have trained more than a thousand individuals in the use of OpenQuake from more than 90 countries since 2015.

### Purpose

To celebrate GEM's and the OQ communities' achievements in developing OQ and applying it to analyse seismic hazard and risk worldwide. To explore current capabilities and future directions in the development of the software and its applications.

## AGENDA

TOPIC	SPEAKERS	ORGANIZATION
Introduction and brief history	John Schneider	GEM
<b>OQ Engine Hazard: past, present and future</b>	Marco Pagani	GEM
- Working with the OQ Engine for site-specific, national and regional hazard assessment	Laurentiu Danciu	ETH Zurich
- Seismic hazard analysis for engineering-based insurance applications	Yufang Rong	FM Global, USA
<b>OQ Engine Risk: past, present and future</b>	Vitor Silva	GEM
- Building a national risk model for Canada	Murray Journeay	NRCan, Canada
- Urban Risk Assessment in Colombia	Ana Beatriz Acevedo	EAFIT Univ, Colombia
<b>Questions and Answers, wrap-up</b>	Moderator	GEM

## SPEAKERS



John Schneider



Marco Pagani



Vitor Silva



Murray Journeay



Laurentiu Danciu



Ana Beatriz Acevedo



Yufang Rong



OpenQuake is recognized as one of the most advanced tools in the world. Because of its transparent nature, you can trace the outputs of your work, giving modellers access to how it works - it's not a black box! - **Jack Baker, Stanford University**