

Philippe GUEGUEN
FULL CURRICULUM VITAE

Institut des Sciences de la terre – ISTerre (UMR 5559)
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APPOINTMENTS

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|---|--------------|
| Senior Resercher - Directeur de recherche – Université Gustave Eiffel – ISTerre | 2011-present |
| Junior Researcher – Chargé de recherche – LCPC – LGIT | 2001-2010 |
| Junior Engineer - Geoconcept – Chambéry - | 2000-2001 |
| Scientific National service (cooperant) - ORSTOM – Quito | 1996-1997 |

EDUCATION

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|---|------|
| Habilitation to supervise research (HDR), Université Joseph Fourier, Grenoble, France | 2009 |
| PhD Geophysics, Université Joseph Fourier, Grenoble, France | 2000 |
| Msc (DEA) Geophysics, Université Joseph Fourier, Grenoble, France | 1995 |
| Ing. Dipl Geotechnics, Université Joseph Fourier, Grenoble, France | 1994 |

AWARDS AND GRANTS

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|---|-----------|
| SubRisk – Joint Research Initiative (JRI) AXA Research Fund (PI) | 2020-2024 |
| URBASIS-EU – European ITN_MSCA H2020 (PI) | 2018-2023 |
| URBASIS-Décision – MAIF Fund (PI) | 2017-2021 |
| SISM@jp-Swarm – Programme Interrégional du Massif des Alpes POIA-FEDER (PI) | 2018-2021 |
| URBASIS-Vulnérabilité – MAIF Fund Coordinateur | 2012-2015 |
| URBASIS – Projet ANR-RISK NAT (PI) | 2009-2013 |
| RISE-EU - European H2020 No.821115 – Project scientist | 2019-2023 |
| SERA - European H2020 - INFRAIA-01-2016 - Project scientist WP28 : Real-time earthquake shaking | 2017-2020 |
| ENVRiplus - European H2020 No 194947 – Task Leader 1.3.1 Improving measurement networks | 2015-2019 |
| EPOS - European Plate Obs. Syst. - H2020 No 654182 – Project Scientist WP8 : Service and data | 2015-2019 |
| STREST – European FP7-2007-2013 No 603389 – Project Scientist WP3 – Low prob.-high cons. | 2013-2016 |
| NERA – European FP7 No 262330 – Project scientist Activity NA3 SM networks and SM data users | 2010-2014 |
| ISIBAT – RiskNat European Project (Interreg) - Project scientist B.6-C.6 - Risque sismique | 2009-2012 |
| NERIES – European FP6 No 026130 – Task leader Activity NA5 SM data dissemination | 2006-2010 |
| SISMOVALP – Alpine Space European Project (Interreg III B Espace Alpin) – Project scientist | 2003-2007 |
| E-City – ANR project No ANR-21-CE22-0020 – Work Package Leader | 2021-2025 |
| RESIF-CORE - EQUIPEX – Project scientist and Leader (2010-2015) RESIF data Center | 2010-2020 |
| REMAKE – ANR project No ANR-15-CE04-0004 – Project scientist | 2015-2019 |
| ARVISE – ANR project No ANR-06-RGCU-0007 – Task leader | 2007-2010 |
| BELLEPLAINE – ANR project No ANR-06-CATT-003 – Task leader | 2007-2010 |
| VULNERALP – Regional Council (Rhône-Alpes) – PI | 2003-2005 |

PROFESSIONAL SERVICE

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|---|--------------|
| Deputy director Geotechnique, Environment, Seismic Risk (GERS) department Université Gustave Eiffel | 2019-2023 |
| Membre Grenoble Observatory of Earth (OSUG) (representative GERS/UGE) | 2019-present |
| Lead of the Seismic Risk group Université Gustave Eiffel | 2018-2023 |
| President Alpine Consortium for Natural Hazard and Risk management (PARN) | 2018-2023 |
| Elected member Executive committee ORFEUS (European Consortium for Seismology) | 2018-2022 |
| Member Executive Committee European Seismological Commission (ESC) | 2018-2021 |
| Nominated member council Particle physics, Astrophysics, Geosciences, Environment and ecology PAGE Univ Grenoble | 2016-2019 |

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| Chair French Accelerometric Network (RAP-RESIF) | 2004-2011/2014-2017 |
| Elected member national Council for Astronomers and Physicists CNAP Solid Earth | 2015-2020 |
| Elected member ISTERre Council | 2015-2020 |
| In charge of the ISTERre laboratory development projects - Assignment to support the University of Grenoble's contracting authority in monitoring the ISTERre laboratory's infrastructure projects (construction of an amphitheater, development of an experimental hall, etc.) – Budget for operations: €1.5M | 2015-2019 |
| Deputy director (Observatory system) ISTERre (250 peoples) | 2011-2014 |
| Nominated member Observatory commission OSUG Univ. Grenoble Alpes | 2011-2015 |
| Elected member Scientific Committee of French Association of Earthquake Engineering | 2008-2011 |
| Nominated member Seismology committee INSU/CNRS | 2008-2010 |

INVITED SEMINAR/PRESENTATIONS

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| 3rd Eur. Conf. Earthq. Engng. and Seism. – <i>Urban seismology</i> - Bucarest 4-9 Sept. | 2022 |
| CARGESE's summer school Passive Imaging in wave physics – <i>SHM</i> - Sept. 6-20 (France) | 2019, 2017, 2015, 2013 |
| 2nd Int. Conf. Seismic Des. and Analysis of Structures and Foundations – <i>SHM</i> - June 24-25, London | 2019 |
| IWGoRS 5th Int. Work. Group on Rotational Seism., Sept. 22-26, Sun Moon Lake, Taiwan, | 2019 |
| Cooperative Research by Liaison between Hub Institutes - <i>Urban Seismology</i> - March 27-28, Kyoto | 2015 |
| Center for Seismology in French West Indies (CDSA) – <i>SM network</i> - Sept. 27-28, Guadeloupe | 2015 |
| New Zealand Soc. for Earthq. Engng. (NZSEE) - <i>Urban seismology</i> – Apr. 10-12 Rotorura, NZ | 2015 |
| Int. Workshop on SM and Acceleration Data – <i>French networks</i> – May 12-13, Ankara, Turkey | 2014 |
| NERA Conf. on prospective for Horizon@2020 - Seismic vulnerability, Sept. 02-03, Zell am See (Austria) | 2013 |
| RiskNat project (European) workshop – <i>Seismic risk</i> – June 9-10, Sion, (Suisse) | 2010 |
| 2nd Euro-Med. Acc. Data Exchange and Archiving Workshop – <i>SM network</i> - Nov. 10-12, Ankara, Turkey | 2009 |
| 1st Eur. Conf. Earthq. Engng. and Seism. – <i>Building monitoring</i> – Sept. 3-8 Geneva, Switzerland | 2006 |

SEISMIC NETWORK/EXPERIMENT MANAGEMENT

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|---|---------------------|
| PI METACity-Quito experiment : A semi-dense urban seismic network Planning field deployments, research strategy, data analysis and products, proposal writing | 2019 |
| PI/Chief Scientist French Accelerometric Network (RAP-RESIF) Leading long-term research strategy, data analysis and products, proposal writing, planning field deployments, research guidance, leading scientific committee, chairman of national accelerometric workshop (70 attendees) | 2004-2011/2014-2017 |
| PI/Chief Scientist RESIF National Data center for seismology Launching national data center for seismology (hosted at Univ. Grenoble Alpes), data analysis and products, proposal writing, planning IT deployment, leading scientific committee, IT staff management (4 peoples) | 2010-2015 |
| Scientific PI National Building Array Launching programme for building instrumentation, leading long-term research strategy, data analysis and products, proposal writing, planning field deployments, leading scientific committee | 2004-2017 |
| Post-Earthquake experiment Maule (Chile) 2010 earthquake Field deployments, data management (metadata and RESIF-NDC transfer) – 40 BB and SM stations | 2010 |
| PI/Chief Scientist Belleplaine borehole instrumentation (Guadeloupe) Planning field deployments, design of instrumentation, data analysis and products, proposal writing | 2009 |
| Post-Earthquake experiment Boumerdes (Algeria) 2003 earthquake Planning field deployments for building damage assessment, data analysis and products | 2003 |
| PI/Chief Scientist ARVISE building testing using Ambient Vibration (Guadeloupe) Planning field experiment, building testing, data analysis and products, proposal writing – 70 building tested | 2009 |

PATENT/ADDED-VALUE

Patents

- Chatelain J.-L., P. **Guéguen**, B. Guillier, F. Bondoux. **1999**. Cityshark, marque déposée pour l'IRD le 27/07/1999, n° 99 804 559, Classe 9, Extension Europe, Etats-Unis, Japon.
- Chatelain J.-L., P. **Guéguen**, B. Guillier, F. Bondoux. **1999**. Cityshark : Une station d'enregistrement du bruit de fond, Brevet d'invention n° 99 14943, Bulletin de la propriété industrielle n° 02/07 du 15.02.02 (n° de publication 2 801 683).
- Chatelain J.-L., P. **Guéguen**, B. Guillier, F. Bondoux. **2005**, Cityshark:Digital data recorder exempt of a site background noise, PatentNumber : 6,876,927, United States Patent and Trademark Office (PTO), délivrée le 04 mai 2005.
- Chatelain J.-L., P. **Guéguen**, B. Guillier, F. Bondoux. **2006**. Enregistreur de données numériques autonome du bruit de fond d'un site, Brevet européen n°1 236 056, Office européen des brevets, délivré le 11 janvier 2006.

Software

Davoine, PA., Gensel, J., **Guéguen**, P., Poulenard, L. **2014**. Isibat : A Web and Wireless Application for Collecting Urban Data about Seismic Risk. In : Pfoser, D., Li, KJ. (eds) Web and Wireless Geographical Information Systems. W2GIS 2014. Lecture Notes in Computer Science, vol 8470. Springer, Berlin, Heidelberg. [10.1007/978-3-642-55334-9_9](https://doi.org/10.1007/978-3-642-55334-9_9) - No more available

Database

Dollet C, **Guéguen** P. **2022**. LEQ445 - The flat file for human and economic losses due to earthquakes (1967-2018) considering exposed GDP and population. [Data access](#)

Astorga A.L., **Guéguen** P., Ghimire S., Kashima T. **2019**. NDE1.0 – A new database of earthquake data recordings from buildings for engineering applications. [Data access](#)

Guéguen, P. **2002-2017**. SM database from the French national Accelerometer network 1995-2017 - [More information and data access](#)

Douglas, J., P. **Guéguen**, E. Chaljub, F. Cotton, P. Suhadolc, G. Costa, D. Faeh, E. Spühle, A. Gosar, E. Priolo, C. Barnaba, R. Paolucci, C. Cauzzi, C. Eva. **2006**. Alpine Accelerometer Database. CD-ROM, Projet Interreg 3B, Sismoalp - [More information and data access](#)

Lacave, C., F. Lemeille, P. **Guéguen**, E. Priolo, C. Barnaba, A. Vuan, G. Costa, A. Gosar, P. Suhadolc, D. Fäh, D. Roten, P. Tissières, S. Tadenuma, P.-Y. Bard, F. Cotton, C. Eva, V. Giraud, R. Paolucci, F. Bonilla, P. Foray, J. Jerram. **2006**. Generic Alpine Valley characterization. CD-ROM, Projet Interreg 3B, Sismoalp - [More information and data access](#)

CONFERENCES (CHAIRMAN)

| | |
|---|-------------|
| Euro. Seismo. Conf. ORFEUS/EPOS Oct. 7 -10 , Grenoble – 110 attendees – Chairman | 2019 |
| La biennale du RAP – SM national conference (/2 years) – about 80 attendees – Chairman | 2002 – 2017 |
| First Euro-Med. meeting on Acc. Data Exchange and Archiving - March 10-11, Grenoble – Chairman | 2008 |
| 3rd Int. Symp on Surface ground motion ESG 2006, Aug.30-Sept 1, Grenoble – Co-chairman | 2006 |
| https://hal.archives-ouvertes.fr/hal-00451722 | |

SSA Annual Meeting - Belmont, Washington, Apr. 19-23. Co-chairman session: Earthquakes in the Urban Environment 2022

ESC Conference– Corfu (Greece), Sept.19-24. Co-chairman session : New challenges for urban Engineering seismology. 2021

ESC Conference - Trieste (Italy) 2016

SSA Annual Meeting - Anchorage (USA) 2014 - Co-chair session 2014

PRESS INTERACTIONS

In-person or telephone occasional interviews with journalist covering topics in seismology and earthquake engineering

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| Service FakeNews –Turkish/Syria earthquake and Gazoduc – France24 – Link | 2023 |
| Service FakeNews – Turkish/Syria earthquake – Libération Link | 2023 |
| Interview Turkish/Syria earthquake – DN Alsace - Link | 2023 |
| Seismic risk in Grenoble – Place GRE'NET – Link | 2022 |
| Briançon (France) earthquake – France3 PACA – Link | 2019 |
| Seismic swarm crisis in Maurienne (French Alps) – Live TV Mont-Blanc - Link | 2018 |
| Seismic swarm crisis in Maurienne (French Alps) – TV reportage France 3 Rhône-Alpes - Link | 2017 |
| Seismic metamaterial and earthquake engineering – TV reportage Xenius (ARTE) Link | 2017 |
| Forest as seismic metamaterial – TV reportage France 3 Aquitaine - Link | 2016 |
| Interview le Progrès de Lyon – Link | 2016 |
| Seismic damage assessment Interview – Echosciences Grenoble – Link | 2014 |
| Seismic risk in Nice – TV reportage France3 PACA - Link | 2014 |

Large audience papers (in French)

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| Séismes urbains : penser des villes plus résilientes ? CNRS-INFO - Link | 2023 |
| 20 idées reçues sur le risque sismique. Projet SISM@LP-Swarm - Link | 2021 |
| Le risque sismique au temps du COVID-19. Documentation Fondation MAIF - Link | 2020 |
| Et la Maurienne s'est mise à trembler. Institut des Risques Majeurs - Link | 2018 |
| Vulnérabilité sismique dans un pays à sismicité modérée. Institut des Risques Majeurs - Link | 2011 |
| Le génie Parasismique. Encyclopédie Universalis - Link | 2011 |
| Risque sismique. Rhône-Alpes et l'environnement : 100 questions pour la recherche - Link | 2011 |
| Séisme dans la ville. Pour la Science - Link | 2003 |

Movies

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| Projet URBASIS – Vidéo d'information - Link | 2022 |
| Risque Sismique à Grenoble – Link | 2022 |
| Les essaims sismiques – Link | 2021 |
| Et la Maurienne s'est mise à trembler ! – Les matinales de l'IRMA – Link | 2018 |

Savoie : la terre tremble – Franceinfo – Link 2017
Séisme : analyse de la vulnérabilité du bâti existant – Fondation Maif Video - Link 2015

PEER REVIEWER

Proposals

Since 2010

Agence nationale de la Recherche (ANR Flash Japan, ANR Thematic, ...)
CIFRE fellowships programs
National Science Foundation (NSF - 2 projects); Canadian Research Council (2 projects); National Science Foundation Poland (1 project)

Journals

Since 2003

About 50 papers reviewed since 2003 (date of first review, i.e. about 5/year, only for referenced journals): *Bulletin of Earthquake Engineering*, *Bulletin of the Seismological Society of America*, *Journal of Earthquake Engineering and Engineering Vibration*, *Journal of Structural Control and Health Monitoring*, *Journal of Soil Dynamic and Earthquake Engineering*, *Journal of Natural Hazard*, *Geophysical Journal International*...

PhD/HDR (Habilitation to supervise research) Committees

Y Rossi - **ETH Zurich** – Reviewer <lien pdf> 2023
R. D. Dolatabadi Esfahani - **University of Potsdam** – PhD Reviewer <lien pdf> 2022
L. G. Alvarez-Sanchez – **Uni. Gustave Eiffel/UISS Pavia** - President of the PhD committee. <lien pdf> 2022
L. Joshi – **Indian Institute of Technology Roorkee (India)** - PhD Reviewer 2021
Y Maalouf - **University Grenoble Alpes** - President of the PhD committee < tel-03917521> 2021
D. Sivori - **University of Genoa** – PhD Reviewer <link> 2021
R. Zaccherini - **ETH Zurich** – PhD Reviewer <lien pdf> 2021
C. Beauval - **Université Grenoble Alpes** – President of the HDR committee 2020
G. Pianese - **Politecnico Milano Italie** – PhD Reviewer <lien pdf> 2018
C. Aristizabal - **Université Grenoble Alpes** - President of the PhD committee <tel-01825052> 2018
Y.S.G Reuland - **EPFL Suisse** – PhD Reviewer <lien pdf> 2017
T. Heitz - **Université Paris Saclay** - PhD Reviewer <tel-01684727> 2017
J.V. Pina Valdes - **Université Grenoble Alpes** - President of the PhD committee <tel-01693080> 2017
B. Derras - **Université Grenoble Alpes** - President of the PhD committee <tel-01652115> 2017
E. Oral - **Université Paris-Est** - PhD Reviewer <tel-01562279> 2016
G. W. Fernandez Lorenzo - **Université Côte d'Azur** - PhD Reviewer <tel-01627564> 2016
C. Limoge – **Université Paris Saclay** – PhD Examinateur <tel-01314443> 2016
F. Nasser - **Université Grenoble Alpes** - President of the PhD committee <tel-01218050> 2015
H.A. Yepes Arostegui - **Université Grenoble Alpes** - President of the PhD committee <tel-01330748> 2015
L. Thien-Phu - **Université Clermont Auvergne** – HDR Reviewer 2015
M. Brun - **INSA Lyon** – HDR Reviewer 2014
P.-A. Davoine - **Université de Grenoble** – HDR Reviewer 2014
Z. Li - **Université de Grenoble** - President of the PhD committee <tel-00848347v2> 2014
J. Régnier - **Université Paris-Est** - PhD Reviewer <tel-00906072> 2013
L. Honoré-Foundotos - **Université Nice Sophia Antipolis** - PhD Reviewer <tel-00920208> 2013
M. Brax – **Uni. Grenoble** - President of the PhD committee <https://www.theses.fr/2013GRENU050> 2013
P. Taforel - **Université de Montpellier** - President of the PhD committee <tel-00801814> 2012
M. B. Rojo - **Université de Grenoble** - President of the PhD committee < tel-01229852> 2011
C. Lesueur - **Université de Strasbourg** – PhD Reviewer <lien pdf> 2011
A. Gandomzadeh - **Université Paris-Est** - PhD Reviewer <tel-00648179> 2011
F. Courboux - **Université Nice Sophia Antipolis** – HDR Reviewer 2010
M. Tapia Jimenez - **Université de Barcelone** – PhD Reviewer 2006

REVIEW PANEL MEMBER

HCERES Committee (President) Observatoire EOST - Université de Strasbourg 2017
HCERES Committee (Member) GeoAzur Lab - Université de Nice 2017
HCERES Committee (Member) Observatoire des Sciences de l'Université de Nantes 2016

TEACHING EXPERIENCE

Ecole et Observatoire des Sciences de la Terre (EOST) - Strasbourg - **Engineering seismology and Risk** – Master (Msc)&Engineer 5A – 2010-present – 6 hours
Université Grenoble Alpes - **Structural monitoring and Condition based maintenance** – Master (Msc) Civil Engineering – 2012-present – 20 hours
Université Grenoble Alpes - **Advanced methods - Structural Health Monitoring** - Master (Msc) Modelling and Instrumentation for mechanics - 2012-present – 8 hours
Université Grenoble Alpes - **Structural dynamics and Risk** – Master (Msc) Engineering Seismology – 2019-present – 6 hours
Université Grenoble Alpes - **Experimental methods in Structural Dynamics** – Polytech Grenoble Engineering School - 2021-present – 6 hours

Université Grenoble Alpes - Experimental testing and building monitoring - *European Master of Earthquake Engineering and Seismology (MEEES)* - **2008-2019** – 6 hours
 Université Grenoble Alpes – Engineering Seismology and earthquake Engineering - Polytech Grenoble Engineering School - **2010-2013** – 25 hours
 Université Grenoble Alpes – Site effects and Seismic vulnerability - *Master (Msc) Geophysics Environment and Risk* - **2010-2014** – 10 hours

2023 - URBASIS Spring School - **Urban seismology and risk analysis**, Porquerolles (France) 15-20 May 2023 – 52 participants – PI and Chairman - [web](#)
2022 - URBASIS Spring School - **Earthquake Engineering and Engineering Seismology**, Autrans (France) 16-21 may 2022 – 45 participants - PI and Chairman - [web](#)
2020 - Introduction to Nonlinear Dynamics : Application to soils and structures – *URBASIS-EU lecture* – 2020 – 4 hours. [<link>](#)
2014 - Processus et variables aléatoires appliqués dans l'ingénierie des structures – Université Technologique de Bucarest, faculté d'ingénierie en langues étrangères – *In French* – 12 heures.

SUPERVISING/MENTORING

PhD

Dorian Janot – SHM of High-Rise wooden building **Funding** IDEX UGA. **Supervising** 20% 2025
 Ashta Poudel - Evaluation of the systemic vulnerability and risk of interconnected systems at urban scale 2023
 - **Funding** : H2020 (ITN-MSCA URBASIS-EU) **Supervising** : 50%
 Ricardo Minetto - Seismic swarms : comparing natural and induced earthquakes - **Funding** : H2020 (ITN-MSCA URBASIS-EU) – 2 peer-review papers. **Supervising** : 100% - **Now** Post-Doc EOST Strasbourg 2023
 Andrés Hernandez - Time dependency of seismic hazard and risk in urban areas, including seismicity variations and building degradation in time - **Funding** : H2020 (ITN-MSCA URBASIS-EU) – 3 peer-review papers (submitted). **Supervising** : 60% - **Now** : Post -Doc ISTerre Grenoble 2023
 Subash Ghimire - Data-driven-based models for seismic damage assessment of buildings : using machine learning at a regional scale and in-situ structural monitoring at building scale - **Funding** : H2020 (ITN-MSCA URBASIS-EU) – 4 peer-review papers – **Supervising** : 80% - **Now** Post Doc ISTerre Grenoble 2023
 Hussein Shible - Development of a new approach to define reference ground motions applicable to existing strong-motion databases. Université Grenoble Alpes (HAL Id : tel-03467074v1) – **Funding** : CEA – 3 peer-review papers – **Supervising** : 20% - **Now** : Ingénieur Sismique – Seister. 2021
 Cyrielle Dollet - URBASIS-Décision - Modélisation des conséquences socio-économiques et juridiques d'un séisme à l'échelle urbaine. Université Grenoble Alpes (HAL Id : tel-03191612) - **Funding** : Fondation MAIF – 2 peer-review papers – **Supervising** 100% - **Now** : Ingénieure d'études - Gestion des risques inondations - PCM INGENIERIE 2020
 Adrien Pothon - Seismic loss modelling in insurance industry : towards a new model for better claims management - Université Grenoble Alpes (HAL Id : tel-02862122) - **Funding** : AXA – 2 peer-review papers – **Supervising** 80% - **Now** : Risk Manager – AXA 2019
 Ariana Astorga (**2019**) - Seismic monitoring of structures : characterization of building response by analyzing nonlinear elasticity and slow dynamics (HAL Id : tel-02443212) – 5 peer-review papers – **Funding** : IFSTTAR – **Supervising** 100% - **Now** : post-doc ISTerre projet Européen RISE. 2017
 Marc Antoine Brossault (**2017**) - Suivi temporel de la dynamique des structures : apports du théorème fluctuation-dissipation et de la dynamique lente pour l'évaluation de l'intégrité des structures de génie civil. Université Grenoble Alpes (HAL Id : tel-01701948) - 2 peer-review papers - **Funding** : Région Rhône-Alpes – **Supervising** 50% - **Now** : CDI SITES - Division du Développement Technique 2018
 Levent Isbiliroglu (**2018**) - Strategy for Selecting Input Ground Motion for Structural Seismic Demand Analysis - Université Grenoble Alpes (HAL Id : tel-01809010) – 1 peer-review paper - **Funding** : IRSN – **Supervising** 20% - **Now** : Civil Structural Engineer - Consultant EDF 2015
 Ismael Riedel (**2015**) - Seismic vulnerability analysis of existent buildings. Loss estimation and uncertainty analysis for deterministic earthquake scenarios. Université Grenoble Alpes, 2015. English. (HAL Id : tel-01281424) - Université Grenoble Alpes - **Funding** : Fondation MAIF – 3 peer-review papers – **Supervising** 100% - **Now** : post-doc 6 mois à ISTerre 2014
 Hilal Oksuz (**2014**) - Comparison of probabilistic seismic hazard estimations with observations (accelerations and intensities). Université de Grenoble. HAL Id : tel-01549070 – **Funding** EDF - 2 peer-review papers – **Supervising** 20% - **Now** : CDI NECS. 2014
 Johannes Chandra (**2014**) - Nonlinear seismic response of the soil-structure system : experimental analyses - Université Grenoble Alpes (HAL Id : tel-01282658) - **Funding** : IFSTTAR – 3 peer-review papers – **Supervising** 100% - **Now** : Génie Civil nucléaire EGIS 2013
 Alaa Hamze (**2013**) - Changes detection and localization in civil engineering structures : numerical and laboratory approaches - Université Grenoble Alpes (HAL Id : tel-00934435) - **Funding** Région Rhône-Alpes – 1 peer-review paper – **Supervising** 50% - **Now** assistant université du Liban 2013
 Matthieu Perrault (**2013**) – Seismic vulnerability assessment using in-situ measurements - Université Grenoble Alpes (HAL Id : tel-00934454) - **Funding** : ressources propres – 2 peer-review papers – **Supervising** 100% - **Now** : CDI Sercell-SHM 2010
 Ali Mikael (**2010**) – Experimental Modal parameters assessment of Civil Engineering structures – Damping, Frequency and mode shape - Université Joseph Fourier Grenoble (HAL Id : tel-00597269) - **Funding** : Syrie et ANR – 1 peer-review paper – **Supervising** 50% - **Now** : Canadian Wood Council Ottawa, Ontario, Canada 2007

Clotaire Michel - Seismic vulnerability assessment using ambient vibrations - Université Joseph Fourier Grenoble (HAL Id : tel-00191024) - **Funding** : Ministère – 4 peer-review papers – **Supervising** 80% - **Now** : Assistant Zurich University of Applied Sciences

Post-Doc/Experts

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| Ariana Astorga - European project RISE – <i>Post-Doc Topic</i> : SHM – Supervising 100% | 2022-present |
| Martin Lott - ANR Project E-City – <i>Post-Doc Topic</i> : Site-City interaction – Supervising : 100% | 2022-2023 |
| Cyrielle Dollet - FEDER Project SISMALP-Swarm – <i>Post-Doc Topic</i> : Losses – Supervising : 100% | 2021-2022 |
| Gael Janex - FEDER Project SISMALP-Swarm – <i>Engineer Seismology Topic</i> : suivi de la sismicité des Alpes – Supervising 50% | 2020-2021 |
| Gersande Lemarchand - FEDER Project SISMALP-Swarm – Communication Expert Supervising 100% | 2020-2021 |
| Judith Marinière - FEDER Project SISMALP-Swarm – <i>Post-Doc Topic</i> : Ground motion prediction – Supervising 80% | 2021-6months |
| Konstantinos Trevelopoulos - European project STREST – <i>Post-doc Topic</i> : Seismic vulnerability time-dependency – Supervising 100% | 2014-2015 |
| Jakub Schinkmann - ANR project URBASIS – IT Engineer Topic : SHM with RDT – Supervising 100% | 2011-2013 |
| + about 2 Msc dissertation supervising/year (Geophysics, Seismology, Engineering Seismology...) | Since 2001 |

DECISION MAKING SUPPORT

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| Talk Seismic Risk in Grenoble – Co-chair with Civil Protection of the Grenoble City – Lien | 2023 |
| Conference for Civil Protection service of the Grenoble City: Seismic risk management | Nov. 2019 |
| Public Talk - Maurienne Seismic swarm information (Argentina) With local and national authorities | Dec. 2017 |
| Seismic risk in Grenoble, Club risque de la région Rhône-Alpes, DIREN | Dec. 2006 |
| Task leader (writing) Seismic vulnerability Roadmap of the General office for Risk prevention (DGPR) | 2022-2023 |
| Agreement leader City of Grenoble/University Grenoble Alpes on Seismic risk reduction <i>Agreement number 038-213801855-20211108-D2021108_15-DE</i> | 2021-2024 |

Agreement UGE/DGPR on Seismic risk research action Since 2018
 President Alpine Consortium for Natural Hazard and Risk management (PARN) 2018-2023
NGO helping to define and monitor regional strategies for managing natural hazards and adapting to climate change in the Alps (SUD and Auvergne Rhône-Alpes AuRA). Support for national and regional initiatives: Contribution to the EU Macro-regional Strategy for the Alpine Region (SUERA), Contribution to the elaboration of an Action Plan for the Prevention of Risks of Glacial and Periglacial Origin (PAPROG), Support to Grenoble-Alpes-Métropole for the elaboration of its metropolitan resilience strategy, Regional coordination on Integrated Management of Natural Hazards in the Alps (TAGIRN) and Scientific networking (SDA), etc.

OUTREACH ACTIVITIES

In schools (in French)

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| Le risque sismique – Classe préparatoire Lycée du Parc | Dec 2023 |
| Le risque sismique dans les Alpes et la vallée de l'Ubaye – Intervention dans les écoles et collèges de la vallée de l'Ubaye – 10 interventions. Dans le cadre de la restitution du projet FEDER/POIA SISM@LP-Swarm. | June 2022 |
| Le risque sismique en France et la réglementation, Accueil de classes de collège et de lycée à ISTerre | Since 2016 |
| Risque sismique dans les Alpes - Intervention au collège de Saint-Michel de Maurienne (73) | Nov. 2017 |
| Les séismes. Intervention à l'école primaire de Beaucroissant (Isère) CM1/CM2. | Juin 2016. |
| Le risque sismique à Grenoble. Intervention au collège Le Chamandier (Gières - 38) et atelier sur la construction parasismique - Partenariat avec les professeurs de SVT. | 2010 - 2019. |
| Participation au forum des métiers lycée du Grésivaudan Meylan (38) - Présentation des métiers des sciences de la terre. | 2015-2016-2018 |
| Sismologie, Classe SVT 1ère - Lycée du Mont-Blanc Passy (74) | 2013 |

Public conferences for population (in French)

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| Le risque sismique en Ubaye <u>Organisée par le centre SEOLANE de Barcelonnette</u> - Lien | 2021 |
| Les essaims de séismes dans les Alpes du Nord, <u>Organisée par l'Association des Réserves Naturelles des Aiguilles Rouges.</u> | June 2020 |
| Risque sismique à Grenoble, <u>Conférence des Amis des Sciences de l'UIAD</u> | Oct. 2019 |
| Les séismes dans les Alpes. <u>Géofestival 2018</u> , Albertville | Mai 2018. |
| Séismes, tsunamis, volcans : que risquons nous ? <u>Connaissance et vie d'Aujourd'hui</u> , Lyon, | Jan. 2018. |
| Les essaims sismiques dans les Alpes - <u>Les matinales de l'IRMA</u> - Argentine (73) - | 2018 |
| Information sur la crise sismique de Maurienne - <u>Réunion publique à la mairie de La Chapelle</u> (73) | Oct. 2017 |
| La vulnérabilité et le risque sismique en France - <u>Fédération Française des Sociétés d'Assurance</u> , Paris. | April. 2016 |
| Le risque sismique à Grenoble - <u>Apéro Citoyen à la bibliothèque des Béalières</u> Meylan (38) - | 2014 |
| Le risque sismique en France et la réglementation, <u>Université Populaire Eymoutiers</u> (87) | 2014 |
| Vulnérabilité sismique du bâti existant. <u>Intervention au Salon des Maires de France</u> , Paris | Nov. 2012 |
| Risque sismique à Grenoble. Lecture et échange avec Dany Laferrière, autour de son livre "Tout bouge autour de moi" (Edition Grasset), <u>10e Printemps du Livre de Grenoble</u> | March. 2012. |

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| Le comportement sismique du bâti existant, Conférence-débat - MAIF, Poitiers, | April 2011 |
| Génie Parasismique et dynamique des structures, <u>Vème rencontre Géographes-Assureurs, Poitiers</u> | April 2011 |
| Méthodes d'évaluation de la vulnérabilité sismique du bâti existant, <u>Atelier RiskNat, Sion (Suisse)</u> | June 2010 |
| Construire parasismique en Rhône-Alpes, <u>formation continue Univ. Grenoble</u> | 2008 |
| Aléa et vulnérabilité à Grenoble - <u>Services techniques de la ville de Grenoble, Projet Sismo-DT</u> | April 2006 |
| Vulnérabilité sismique à Grenoble, <u>Atelier PRINAT, Foire internationale de Martiny (Suisse)</u> | Oct 2006 |
| Le risque sismique à Grenoble, <u>Schéma directeur de la région Grenobloise, Grenoble</u> | Oct 2006 |
| Le risque sismique à Grenoble, Formation <u>Instituteurs de l'Isère</u> | Feb. 2005 |

PUBLICATIONS

Web of Science/Publons : Number: 112 – Citations: 2709 – H-index : 30 – ResearcherID : [A-3852-2012](https://publons.com/researcher/2761751/philippe-gueguen/) - <https://publons.com/researcher/2761751/philippe-gueguen/>

Google Scholar : Citations 5507– h-index : 38 – <https://www.isterre.fr/annuaire/pages-web-du-personnel/philippe-gueguen/>

In red, students (Msc, PhD, Post-Doc)

NB : Poster or Oral conference presentations: about 3/years since 1997

SPECIAL ISSUE IN PEER-REVIEWED JOURNAL

- 2023.** Special Issue "Structural Health Monitoring of Masonry Buildings: Current Practice and Future Challenges", Buildings, Cattari S., **Guéguen P.**, Venanzi Ilaria Eds.
- 2022.** Barani, S., Akinci, A., Sesetyan, K., Albarello, D., **Guéguen, P.**, Parolai, S., Paolucci, R., Pitilakis, D., eds. (2022). New Challenges for Seismic Risk Mitigation in Urban Areas. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-83250-790-2
- 2021.** Kaklamanos, J., Cabas, A., Parolai, S., & **Guéguen, P.** Eds. Special Issue on Advances in Site Response Estimation. Bulletin of the Seismological Society of America, doi : [10.1785/0120210152](https://doi.org/10.1785/0120210152)
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PEER-REVIEWED JOURNAL ARTICLES

2024

- **Mistry H.K., Hernandez A., Guéguen P., Lombardi D. 2024.** Effect of earthquake sequences on risk-based catastrophe bond pricing, Accepted Risk Analysis.
 - Rodet, J., Tazuin, B., Panah M.P., **Guéguen, P.**, Nziengui Bâ, D., Coutant O., Brûlé, S. **2024** Urban dark fiber DAS for bridge monitoring, accepted to Struct. Health Mon.
 - Pilz M., Roux P., Mohammed S A, Bernauer F., Garcia R., **Guéguen P.**, Ohrnberger M., Steinmann R. Cotton F. **2024.** Wind turbines as a metamaterial-like urban layer : an experimental investigation by a dense seismic array and complementary sensing technologies. Front. Earth Sci., Sec. Geohazards and Georisks (12). doi : [10.3389/feart.2024.1352027](https://doi.org/10.3389/feart.2024.1352027)
 - **Ghimire S., Guéguen P. 2024.** Host-to-target region testing of machine learning models for seismic damage prediction in buildings. Natural Hazards. doi : [10.1007/S11069-023-06394-Z](https://doi.org/10.1007/S11069-023-06394-Z)
 - Virieux J., Paul A., Langlais M., Janex G., **Guéguen P.**, Helmstetter A., Stehly L. **2024.** Assessing the reliability of local earthquake tomography for crustal imaging : 30 years of records in the Western Alps as a case study, Geophysical Journal International, 236(1):99–118. doi : [10.1093/gji/ggad378](https://doi.org/10.1093/gji/ggad378)
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- Cattari S., **Guéguen P.**, Venanzi Ilaria Eds. **2023.** Special Issue "Structural Health Monitoring of Masonry Buildings : Current Practice and Future Challenges", Buildings, [Web access](#)
- **Ghimire S, Guéguen P, Pothon A, Schorlemmer D. 2023.** Testing machine learning models for heuristic building damage assessment applied to the Italian Database of Observed Damage (DaDO), Natural Hazards and Earth System Sciences, 23(10):3199–3218. doi : [10.5194/nhess-2023-7](https://doi.org/10.5194/nhess-2023-7)
- Montabert A, Giry C, Limoge Schraen C, Lépine J, Choueiri C, Mercerat E D, **Guéguen P. 2023.** An open database to evaluate the fundamental frequency of historical masonry towers through empirical and Physics-based formulations. Buildings, 13(9), 2168. doi : [10.3390/buildings13092168](https://doi.org/10.3390/buildings13092168)
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