

Dr Julia Eychenne – Research Fellow in Physical Volcanology

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33 years old (04/11/1985)
One child (born 5/09/2018)

EDUCATION

- 2008 – 2012 **PhD in Volcanology:** Laboratoire Magmas et Volcans (LMV), University Clermont-Auvergne, France
Eruptive budgets and origin of andesitic explosive paroxysms during open-system activity: the August 2006 Tungurahua eruption, Ecuador. Advisor: J.L. Le Pennec
- 2008 **Engineering Graduate Diploma in Petroleum Geosciences and Master degree in Geodynamics:** “Engineering School” of Geology (ENSG) and University of Lorraine, Nancy, France

RESEARCH APPOINTMENTS

- 2019 - 2021 **Research Fellowship, LMV, France:** *Health and economic impacts of volcanic ash.*
Funded by a *Fellowship from the CAP 20-25 I-Site Clermont consortium on studies on disaster risk and socio-economic vulnerability.*
- 2016 – 2018 **Research Fellowship, LMV, France:** *Experimental calibration of satellite-based methods for the study of volcanic plumes.*
Funded by an *Independent Research Fellowship from the French National Research Institute for Sustainable Development (IRD).*
- 2013 – 2016 **Research Fellowship, University of Bristol, UK:** *Primary and secondary processes of ash formation and transport during dry explosive eruptions.*
Funded by an *Independent Intra-European Marie Curie Fellowship* from June 2013 to June 2015.
- 2012 – 2013 **Post-Doctoral research position, University of Hawaii, USA:** *Dynamics of the 2008-2012 explosive events at Halema`uma`u Overlook vent, Kilauea volcano.*

KEY PUBLICATIONS

- Gouhier M, **Eychenne J**, Azzaoui N, Guillin A, Deslandes M, Poret M, Costa A, Husson P, **2019**. Low efficiency of large volcanic eruptions in transporting fine ash into the atmosphere. *Nature Scientific Reports*
- Buckland HM, **Eychenne J**, Rust AC, Cashman KV, **2018**. Relating the physical properties of volcanic rocks to the characteristics of ash generated by experimental abrasion. *J Volcanol Geotherm Res* 349:335-350
- Eychenne J**, Rust AC, Cashman KV, Wobrock W, **2017**. Distal enhanced sedimentation from volcanic plumes: insights from the secondary mass maxima in the 1992 Mount Spurr fallout deposits. *J Geophys Res Solid Earth* 122:7679-7697
- Bernard J, **Eychenne J**, Le Pennec J-L, Narváez Rivadeneira D, **2016**. Mass budget partitioning during explosive eruptions: insights from the 2006 paroxysm of Tungurahua volcano, Ecuador. *Geochem Geophys Geosyst* 17:3224-3240
- Engwell S, **Eychenne J**, **2016**. Contribution of fine ash to the atmosphere from plumes associated with pyroclastic density currents. In *Volcanic Ash: Hazard Observation*, edited by Mackie S, Ricketts H, Watson M, Cashman K, Rust A. 67:85
- Eychenne J**, Cashman K, Rust A, Durant A, **2015**. Impact of the lateral blast on the spatial pattern and grain size characteristics of the May 18, 1980 Mount St. Helens fallout deposit. *J Geophys Res* 120:6018-6038
- Eychenne J**, Houghton B, Swanson D, Carey R, Swavely L, **2015**. Dynamics of an open basaltic magma system: the 2008 activity of the Halema`uma`u Overlook vent, Kilauea Caldera. *Earth Planet Sci Let* 409:49-60
- Eychenne J**, Le Pennec J-L, Ramon P, Yepes H, **2013**. Dynamics of explosive paroxysms at open-vent andesitic systems: High-resolution mass distribution analyses of the 2006 Tungurahua fall deposit (Ecuador). *Earth Planet Sci Let* 361:343-355
- Eychenne J**, Le Pennec J-L, **2012**. Sigmoidal particle density distribution in a subplinian scoria fall deposit. *Bull Volcanol* 74:2243-2249
- Eychenne J**, Le Pennec J-L, Troncoso L, Gouhier M, Nedelec J-M, **2012**. Causes and consequences of bimodal grain size distribution of tephra fall deposited during the August 2006 Tungurahua eruption (Ecuador). *Bull Volcanol* 74:187-205