VHub – a virtual community and cyberinfrastructure for collaboration in volcano research and risk mitigation

Greg Valentine

José Palma

Center for Geohazards Studies
University at Buffalo, Buffalo, NY, USA

What is VHub?

- An online platform for collaboration in research, modeling, data sharing, education & outreach, and communication related to volcanology and volcanic risk mitigation

- Anyone can use the platform, including contributing content, setting up groups (more on this later)

- Overarching goal is to promote global collaboration in volcanology
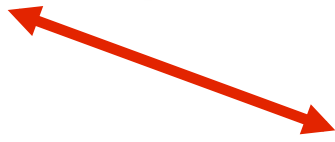
EDUCATION

RESEARCH

V HUB

DISCOVERY

COLLABORATION

https://vhub.org/

VHUB
Collaborative volcano research and risk mitigation

Login | Register

Search

HOME MY HUB MEMBERS RESOURCE WAREHOUSE EXPLORE SUPPORT ABOUT

Help! ?

Vhub.org is a site for collaborative volcano research and risk mitigation. Use the menus above to browse available simulation tools, data resources and links to all things volcanic.

Want to contribute to VHub? Follow **this link** to get started.

VOLCANOES

A cone shaped hill or mountain

The word volcano is derived from the name of Vulcano island off Sicily which in turn, was named after Vulcan, the Roman god of fire.

Learn more ›

FIND CONTENT BY TAGS

🔍 Keyword or phrase: _____

[Search]

Popular Tags:

IAVCEI Commission on Monogenetic Volcanism

Remote Sensing   Eyjafjallajokull

Ashfall Graduate Class

Level: College (Lower level undergrad/nonmajors)

Level: College (Upper level undergrad/Graduate)

tephra   Resource Type: Course (Multiple Lessons)

Satellite measurements   conference   More tags ›

Courses, Data Sets/Collections, Educational Materials, Miscellaneous, Offline Tools, Presentations, Publications, Tools, Workshops... All Categores ›

Upload your own content! Get started ›

WHAT'S NEW IN RESOURCES

Kliuchevskoi_1994_timeline
in Data Sets/Collections, Feb 14, 2012

Research collaboration, hazard modeling and dissemination in volcanology with Vhub
in Presentations, Jan 31, 2012

Alessandro_24Janmeeting
in Data Sets/Collections, Jan 24, 2012

Unrest at VUELCO's target volcanoes
in Data Sets/Collections, Jan 13, 2012

Hintz Dissertation Materials
in Data Sets/Collections, Jan 12, 2012

Expedicion Geofisica de Santiaguito Blog
in Miscellaneous, Jan 11, 2012

See what else is new ›

UPCOMING EVENTS

FEB 20 IAVCEI - IAS 4th International Maar Conference: A Multidisciplinary Congress on Monogenetic Volcanism

MAY 21 1st International Congress on management and awareness in protected volcanic landscapes

SEP 23 IAVCEI-CCC 4th Collapse Caldera Workshop

NOV 19 Cities on Volcanoes 7 (CoV7)

More events ›

V HUB
Collaborative volcano research and risk mitigation

Q▾ Search

HOME   MY HUB   MEMBERS   RESOURCE WAREHOUSE   EXPLORE   SUPPORT   ABOUT   Help! ❓

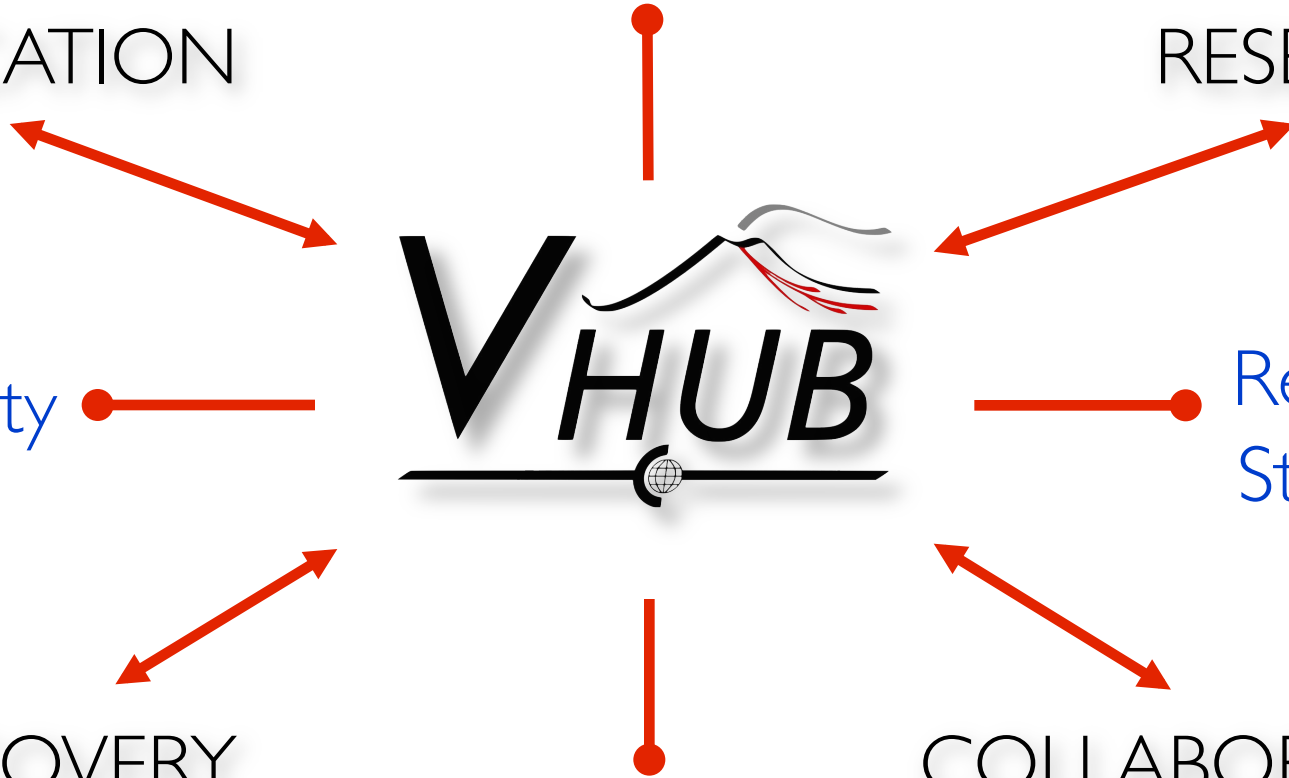You are here: 🏠 Home » Members

Members

🔍 [   ] [Search]

All Contributors   ↓ Contributions   ↓ Organization   ↓ Name

All Members (1-20 of 709)

All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

👤	🔒 Unknown ()	0 Resources, 0 Topics
👤	2008, Fahmi	0 Resources, 0 Topics
👤	🔒 Abdillah, Muhammad Rais	0 Resources, 0 Topics
👤	Adepelumi, Adekunle Abraham	0 Resources, 0 Topics
👤	🔒 Adleman, Jennifer Nicole	0 Resources, 0 Topics
👤	🔒 Administrator, Administrator	0 Resources, 0 Topics

Site Members

When people join this site and make their profiles public they will appear here.

Use the sorting and filtering options to see members listed alphabetically, by their organization, or the number of contributions they have.

Use the 'Search' to find specific members if you would like to check out their profiles, contributions or message them privately.
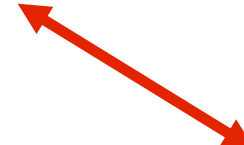
Looking for groups?

Go to the Groups page.

VHUB

Collaborative volcano research and risk mitigation

Q▾ Search

HOME   MY HUB   MEMBERS   RESOURCE WAREHOUSE   EXPLORE   SUPPORT   ABOUT

Help! ❓

Resources: Educational Materials

Educational Materials ⬍ | Go

Tag	Resources	Sort by Title ⬍	Info

Tag

- [All]
- Alaska (1)
- bent (1)
- Colima (1)
- debris avalanches (1)
- deformation (1)
- DEM (1)
- EOT (1)
- Global Volcanism Program (1)
- guia de usuario (1)
- isopach (1)
- lahars (1)
- Laki (1)
- Language: English (7)
- Language: German (1)

Resources

- Magma Viscosity
- Mount St Helens 1980-6 Activity summary
- Porosity and Permeability of Magmas
- Probabilistic Analysis of Volcanic ...
- SciNews: A new resource for ...
- Stromboli online
- Surface Deformation
- Tephra Impact Lab - Taupo Volcano
- This Dynamic Planet
- TITAN2D References
- TITAN2D User Guide, Release 2.0, 2007
- Titan2d user manual (spanish)
- Tutorial for using Titan2D on VHub
- Vesuvius Volcano: 79 A.D. Eruption- ...
- Website about the Montserrat volcano ...

Info

Tephra Impact Lab - Taupo Volcano

This lab requires students to produce a pre-eruption tephra risk assessment for Taupo volcano, using Tephra2. It requires students to consider the eruptive history of Taupo volcano and a volcanic unrest scenario is provided, so that students must decide what magnitude and style of eruption is most likely -- if an eruption does occur. These estimates must be coverted into credible inputs for ... Learn more ›

▶ **Download** (PDF)

☆ 0 review(s) (Review this)
📊 7 user(s)
♡ Add to your favorites!

Top Rated

🛡 **TITAN2D User Guide, Release 2.0, 2007** ✏ Edit
★★★★★ 0.0 out of 5 stars

07 Jan 2011   Educational Materials   Contributor(s): Abani Patra, E Bruce Pitman

This is a user guide for TITAN2D, Mass Flow Simulation Tool, created by the Geophysical Mass Flow Group (GMFG), University at Buffalo. Although this user guide describes the use of Titan2D via a python-built graphical user interface (GUI) that runs on linux machines (release 2.0, July 2007), this ...

TITAN2D References ✏ Edit
★★★★★ 0.0 out of 5 stars

22 Jan 2011   Educational Materials   Contributor(s): Sarah Elizabeth Ogburn

Contains a list of references about TITAN2D, specifically a list of volcanoes and types of flows for which it has been used.

The following are top-rated resources of this type.

VHUB

Collaborative volcano research and risk mitigation

Resources: Workshops

Workshops ⇕   Go

Tag	Resources Sort by Title ⇕	Info
[All]	Eyjafjallajökull, volcanic clouds and ...	Select a resource to see details.
ash transport (1)	Ground-based and remote sensing of ...	
ashfall (1)	IUGG 2011 Workshop VW01: VHub ...	
ASTER (1)	Keilir Conference Summary	
aviation (2)	Large-Scale Experiments Workshop	
Cordon Caulle (1)	PASI: Volcanic Hazards and Remote ...	
Costa Rica (1)		
debris avalanches (1)		
Differential GPS (1)		
DOAS (1)		
eclipse (1)		
eruption columns (1)		
Eyjafjallajokull (2)		
FLIR (1)		
FTIR (1)		

Top Rated

The following are top-rated resources of this type.

Keilir Conference Summary 📝 Edit

★★★★★ 0.0 out of 5 stars

29 Sep 2010   Workshops   Contributor(s): Marcus I Bursik

Summary statement for the Atlantic Conference on Eyjafjallajökull and Aviation 15-16 September 2010, Keflavik Airport, Iceland. Contains links to other material. Freely available for redistribution. http://en.keilir.net/keilir/conferences/eyjafjallajokull/

🛡 Large-Scale Experiments Workshop 📝 Edit

★★★★★ 0.0 out of 5 stars

08 Oct 2010   Workshops   Contributor(s): Greg A Valentine, Pierfrancesco Dellino, Costanza Bonadonna, Amanda Bachtell Clarke

This workshop aimed at developing research priorities and initial design concepts for an international user facility for large-scale experimentation on volcanic processes. Agenda .pdf Presentations Introduction by Greg Valentine .pdf .mov Integrating numerical and laboratory models of ...

VHUB

Collaborative volcano research and risk mitigation

Greg A Valentine (gvalentine) Logout | My Account | My HUB | **124 New Messages**

Q - Search

HOME   **MY HUB**   **MEMBERS**   **RESOURCE WAREHOUSE**   **EXPLORE**   **SUPPORT**   **ABOUT**   Help! ?

You are here: 🏠 Home » Groups » Large-scale experimental facility planning » Resources » Workshops » Large-Scale Experiments Workshop » About

Large-Scale Experiments Workshop 📝 edit

By Greg A Valentine[1], Pierfrancesco Dellino[1], Costanza Bonadonna[2], Amanda Bachtell Clarke[1]

1. University at Buffalo, SUNY (UB) 2. University of Geneva, Switzerland

View Workshop Series

Additional materials available (7)

🟠 Audio podcast
🟠 Video podcast
🟠 Slides/Notes podcast

📖 0 Citation(s)
⭐ 0 review(s) (Review this)
📊 47 user(s)
❤ Add to your favorites!

➡ Share: f t 8 ...

SEE ALSO

No results found.

| About | Citations | Reviews | Supporting Docs |

Category   Workshops

Abstract   This workshop aimed at developing research priorities and initial design concepts for an international user facility for large-scale experimentation on volcanic processes.

Agenda .pdf

Presentations

Introduction *by Greg Valentine* .pdf .mov

Integrating numerical and laboratory models of explosive eruptions with field observations *by Amanda Clarke* .pdf

Pyroclastic density currents and deposits *by Gert Lube* .pdf

Dirty plumes, tephra dispersion and deposition *by Shannon Kobs* .pdf .mov

Craters, diatremes and (unstable) conduits *by James White* .pdf .mov

Magma-water interaction *by Bernd Zimanowski* .pdf .mov

Debris avalanches *by Karine Bernard* .pdf .mov

Ground-based remote sensing *by Matthias Hort* .pdf .mov

Overview of ECLIPSE campus *by Andre Filiatrault* .pdf

Practical experience from large-scale experiments *by Piero Dellino* .pdf .mov

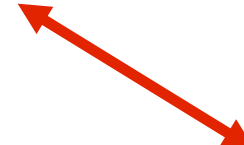Engineering considerations for large-scale experimentation *by Daniel Fuglewicz* .pdf

V HUB

Collaborative volcano research and risk mitigation

Q▾ Search

HOME   MY HUB   MEMBERS   RESOURCE WAREHOUSE   EXPLORE   SUPPORT   ABOUT

Help! ❓

You are here: 🏠 Home » Resource Warehouse » Tools

Resources: Tools

Tools ⇕   Go

Tag

| Resources | Sort by Title ⇕ | Info |

[All]	▶
ash (1)	▶
ash transport (2)	▶
atmospheric plume (1)	▶
Colima (1)	▶
DEM (1)	▶
Digital Elevation Model (1)	▶
education (1)	▶
eruption column (1)	▶
isopach (1)	▶
lab (1)	▶
natural hazards (2)	▶
particles (1)	▶
sedimentation (1)	▶
tephra (2)	▶

Bent - Atmospheric Plume Analysis ▶
DEM converter for Titan2D ▶
Hazmap ▶
Tephra2 ▶
Tephra2: Student Version ▶
Titan2D Mass-Flow Simulation Tool ▶
Titan2D Viewer ▶
Workspace ▶

Select a resource to see details.

Top Rated

Titan2D Viewer 📝 **Edit**

28 Jun 2011   Tools   Contributor(s): Jose Luis Palma

A viewer of the simulation results saved by Titan2D

★★★★☆ 4.0 out of 5 stars

Workspace 📝 **Edit**

23 Feb 2010   Tools

Workspace

★★★★★ 0.0 out of 5 stars

Bent - Atmospheric Plume Analysis 📝 **Edit**

17 Mar 2010   Tools   Contributor(s): Marcus I Bursik

Atmospheric Plume Analysis

★★★★★ 0.0 out of 5 stars

The following are top-rated resources of this type.

https://vhub.org/tools/titan2d/session/1201

Q▾ Google

Titan2D Mass-Flow Simulation Tool

Storage (manage)
24%

| Tool | Questions? | About |

Refresh Window | Popout | ⊗ Close

🔥 Titan

| Load/Save | GIS | General | Material Map | Piles | Flux Sources | Discharge Planes | Job Submission | Job Monitor |

Number of Computational Cells Across Smallest Pile/Flux-Source ... `20`

Scale Parameters
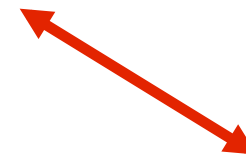
Scale Simulation
- ⦿ True
- ◯ False

Scale Length `20000`

Maximum Number of Time Steps `300000`

Maximum Time `1000`

Time Between Results Output `20`

Time Between Saves `90`

Adapt the Grid
- ⦿ True
- ◯ False

Visualizaton Output Type(s)
- ☐ mshplotXXX.plt
- ☐ tecplotXXX.plt
- ☐ Web Viz
- ☑ HDF/XDMF/Paraview
- ☐ GMFG

✗ Import/Export | 🔥 Titan

`866` x `469`

Applet VncViewer started

https://vhub.org/tools/titan2d/session/1201

Q▼ Google

Titan2D Mass-Flow Simulation Tool

Storage (manage)
24%

| Tool | Questions? | About |

Refresh Window | Popout | ⊗ Close

🔥 Titan

| Load/Save | GIS | General | Material Map | Piles | Flux Sources | Discharge Planes | Job Submission | Job Monitor |

Number of Computational Cells Across Smallest Pile/Flux-Source ... | 20

Scale Parameters

Scale Simulation

Scale Length

Maximum Number of Time Steps

Maximum Time

Time Between Results Output

Time Between Saves

Adapt the Grid

Visualizaton Output Type(s)

✕ Import/Export

① Input → ❷ Run Tool

Result: Map of maximum flow depth
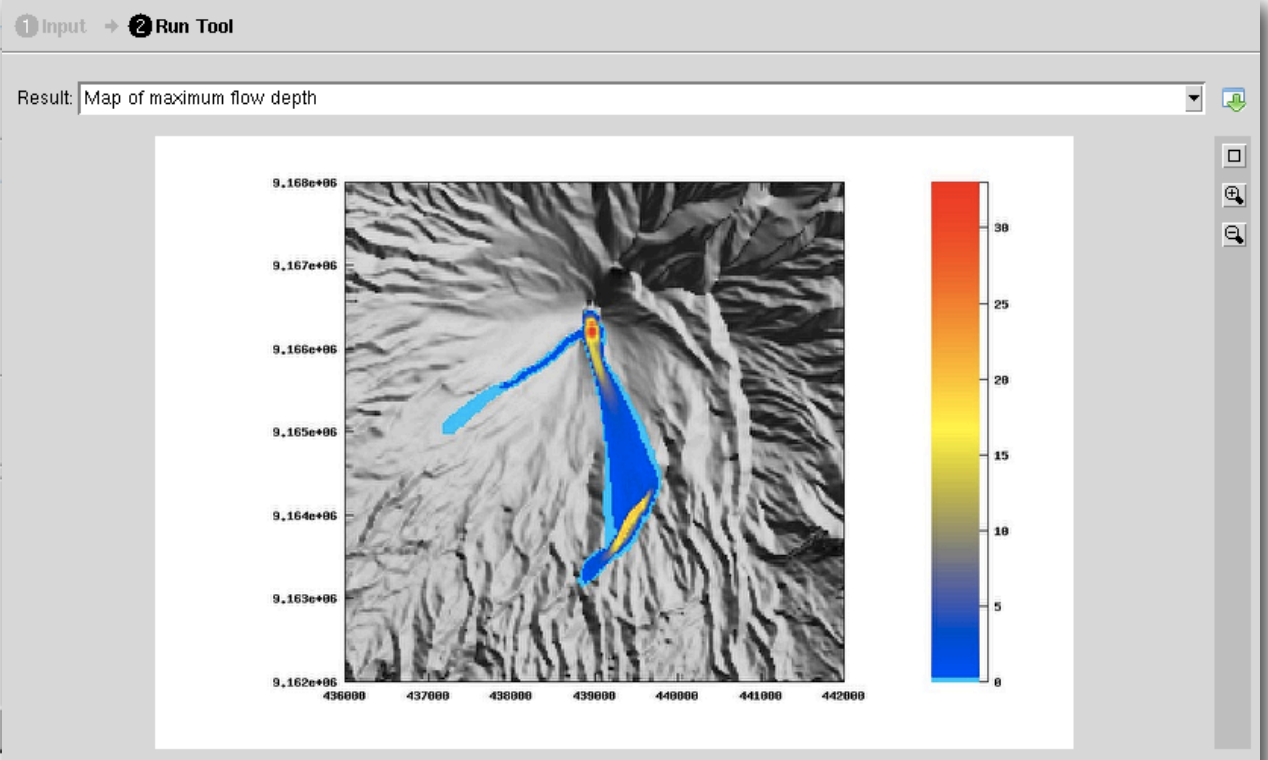
2 results   Parameters...   Clear

< Input

Applet VncViewer started

Implementing simple visualization tools

Example - Simple energy line model for pyroclastic flows, visualized with Google Earth
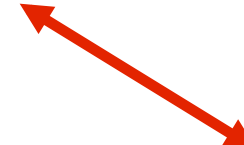
You are here: 🏠 Home » Groups » Lunar Crater Volcanic Field Group
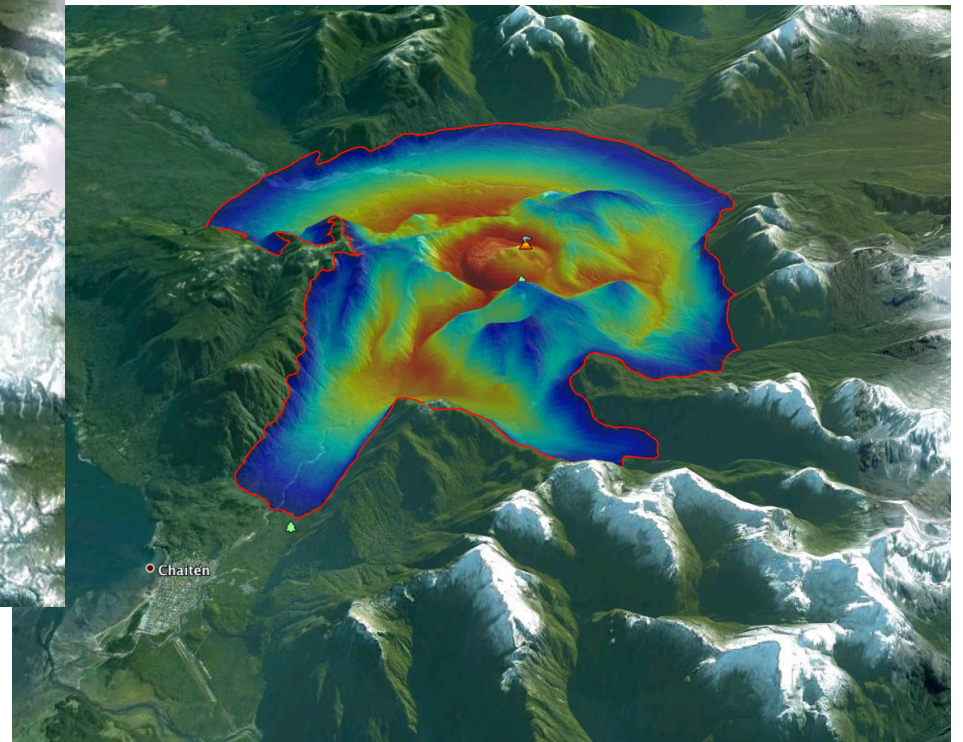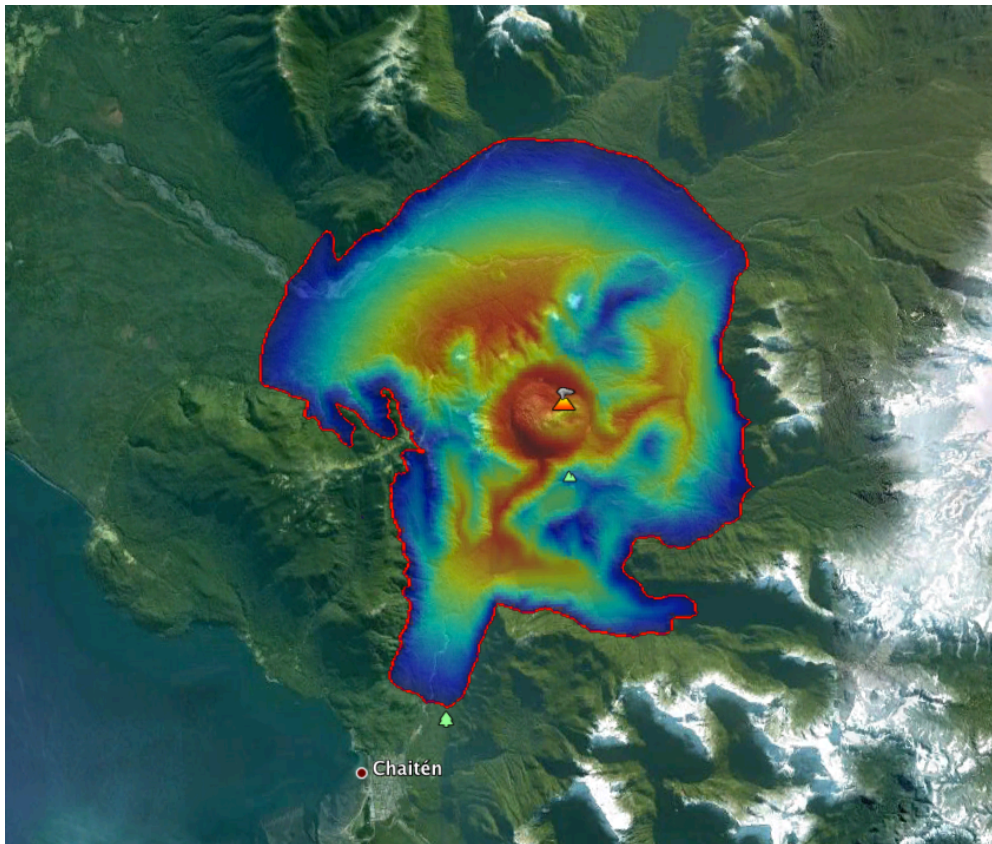
Lunar Crater Volcanic Field Group

About the Group   Show Public Description (+)

Online working group for the Lunar Crater Project Team.

Group Members   View all members →

| Amanda Rachel Hintz | Peter Johnson | Eugene Smith | Sonja Mae Melander | Jamal Amin | Christine Rasoazanamparany | Joaquin Alberto Cortes |

Overview

Members

Wiki

Resources

Discussion

Messages

Blog

Wish List

Calendar

Group manager

Show Manager Controls▼

Managers:
Greg A Valentine, Dawn Catherine Sweeney Ruth, Amanda Rachel Hintz, Elisabeth Widom, David Kuentz, Joaquin Alberto Cortes, Christine Rasoazanamparany, Eugene Smith

Members:
14

Discoverability:
Visible

Policy:
Invite Only

Created:
16 Sep. 2010

Tags:
[none]

HOME   MY HUB   MEMBERS   RESOURCE WAREHOUSE   EXPLORE   SUPPORT   ABOUT   Help! ❓

You are here: 🏠 Home » Groups » IAVCEI Commission on Monogenetic Volcanism

IAVCEI

- Overview
- Members
- Wiki
- Resources
- Discussion
- Messages
- Blog
- Wish List
- Calendar

IAVCEI Commission on Monogenetic Volcanism

About the Group

The term *monogenetic* as applied to volcanic systems carries with it the concept of eruptions of batches of magma within short timescales. Monogenetic volcanism is commonly expressed as clusters of individual volcanoes forming fields of small cones which are a consequence of dispersed plumbing systems feeding discrete batches of magma to the Earth's surface. Beyond this relatively simple concept there is a wide range of temporal, spatial and compositional variables.

The new IAVCEI commission, Commission on Monogenetic Volcanism (CMV) main goal is to provide a forum for researchers to define and understand the phenomenon of small volume magmatic systems and their surface expression as volcano fields. The CMV aim is to take leading role to facilitate, coordinate and focus research and research outputs in regard to monogenetic volcanism and to assist to researchers to develop a refined and unified model of this type of volcanism.

Basic scientific questions, such as the monogenetic nature of these commonly small-volume, small magma output volcanoes are currently frontline research subjects showing growing evidence to develop a more suitable and united model for the formation of these volcanoes from an interdisciplinary perspective. The IAVCEI Commission on Monogenetic Volcanism will serve a mediating and facilitating role in this scientific process as well as provide an interface to disseminate fragmented research effort to be possible to view in a broader perspective.

The coordinators of the Commission are:
Dr. Karoly Nemeth (k.nemeth@massey.ac.nz)
Dr. Ian E Smith (ie.smith@auckland.ac.nz)
Dr Adrian Pittari (apittari@waikato.ac.nz)

Group member

Show Member Controls ▾

Managers:
Amanda Rachel Hintz, Karoly Nemeth, Adrian Pittari

Members:
47

Discoverability:
Visible

Policy:
Open

Created:
27 Jul. 2011

Tags:
diatremes
fissure eruptions
hawaiian eruptions
hazard analysis

Google Calendar | UBmail – gav4@buffalo.edu – Inbox | Seamless Data Warehouse | vhub – Group: Asociación Latinoa...

VHUB
Collaborative volcano research and risk mitigation

Greg A Valentine (gvalentine) Logout | My Account | My HUB | 125 New Messages

HOME   MY HUB   MEMBERS   RESOURCE WAREHOUSE   EXPLORE   SUPPORT   ABOUT   Help! ?

You are here: 🏠 Home » Groups » Asociación Latinoamericana de Volcanología, ALVO

Asociación Latinoamericana de Volcanología, ALVO

About the Group
Show Public Description (+)

La Asociación Latinoamericana de Volcanología (ALVO) fue creada formalmente el 7 de Noviembre de 2010, en Manizales, Colombia. Su creación fue anunciada durante la conmemoración del aniversario número 25 de la erupción del volcán Nevado del Ruiz. Durante esta conferencia, y con la participación de delegados de México, Guatemala, El Salvador, Nicaragua, Costa Rica, Panamá, Colombia, Ecuador, Perú, Argentina y Chile, el comité ejecutivo fue electo como sigue:

Presidente
Hugo Delgado Granados (UNAM, México)

Vice Presidente
José Viramonte (UNSA-CONICET, Argentina)

Secretario General
Martha Calvache (INGEOMINAS, Colombia)

Tesorero
Sofía Navarro (INGEOMINAS, Colombia)

Consejos Regionales
* Norteamérica : Enrique Guevara (CENAPRED, México)
* Centroamérica : María Martínez (OVSICORI, Costa Rica)
* Sudamérica Norte : Gloria Patricia Cortés (INGEOMINAS, Colombia)
* Sudamérica Sur: Felipe Aguilera (Universidad de Atacama, Chile)

El principal propósito de ALVO es reforzar y promover los lazos entre volcanólogos latinoamericanos. ALVO también promueve la colaboración internacional entre países latinoamericanos y otros países del mundo.

Overview
↪ Overview- English

Members

Wiki

Resources

Discussion

Blog

Wish List

Calendar

Group Members
View all members →

Jose L. Palma | Felipe Aguilera | Ramón Espinasa-Pereña | Nick Varley | Hugo Delgado-Granados

Joomla Admin
Show Admin Controls ▼

Managers:
Jose L. Palma, Hugo Delgado-Granados, Felipe Aguilera

Members:
5

Discoverability:
Visible

Policy:
Restricted

Created:
21 Nov. 2010

Tags:
ALVO Argentina Chile
Colombia Costa Rica
Ecuador El Salvador
Guatemala
Latin America Mexico
Nicaragua Panama
Peru

Motivation for VHub

- Originally, VHub was motivated primarily by modeling issues

- However, other items from previous slides have grown to equal importance

Bridging between development and application

- create a mechanism that facilitates closer links between development and application
- provide some tools and models for online execution for observatories that lack computing infrastructure
- standardization of the documentation associated with input data, source code, and output data in collaborative work and in order to ensure traceability and transparency for model results that are used in decision making processes

GeoProMT Geospatial Project Management Tool

For Interdisciplinary Class Work and Collaborative Research • University at Buffalo Department of Geography

Welcome Christian - Project Overview

Home | Select Project | Project Overview

Madison County Mudslide Project

Modify

Project Goal

To prepare the Madison County GIS data for GeoWEPP; determine the soil loss for each contributing area as inputs into the TITAN mass flow simulation

Team Members / Roles

First Last userName: user Role
First Last userName: user Role
First Last userName: user Role

Last edit on:

09/08/2007 00:11:47

Last edit by:

First Last userName: user Roles

Project Overview

Project Design	Source Data	Valid Data	Input Data	Output Data	Output Analysis	Output Validation	Project Report
State: 000% complete	**State:** 000% complete	**State:** 000% complete	**State:** 000% complete	**State:** 000% complete	**State:** 000% complete	**State:** 000% complete	**State:** 000% complete
Certification: Begun	**Certification:** Pending	**Certification:** Pending	**Certification:** Pending	**Certification:** Pending	**Certification:** Pending	**Certification:** Pending	**Certification:** Pending
Comments: 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total	**Comments:** 000 new of 000 total
Last Edit: Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007	**Last Edit:** Aug 7, 2007

Project Workflow

Relationships View   Timeline View

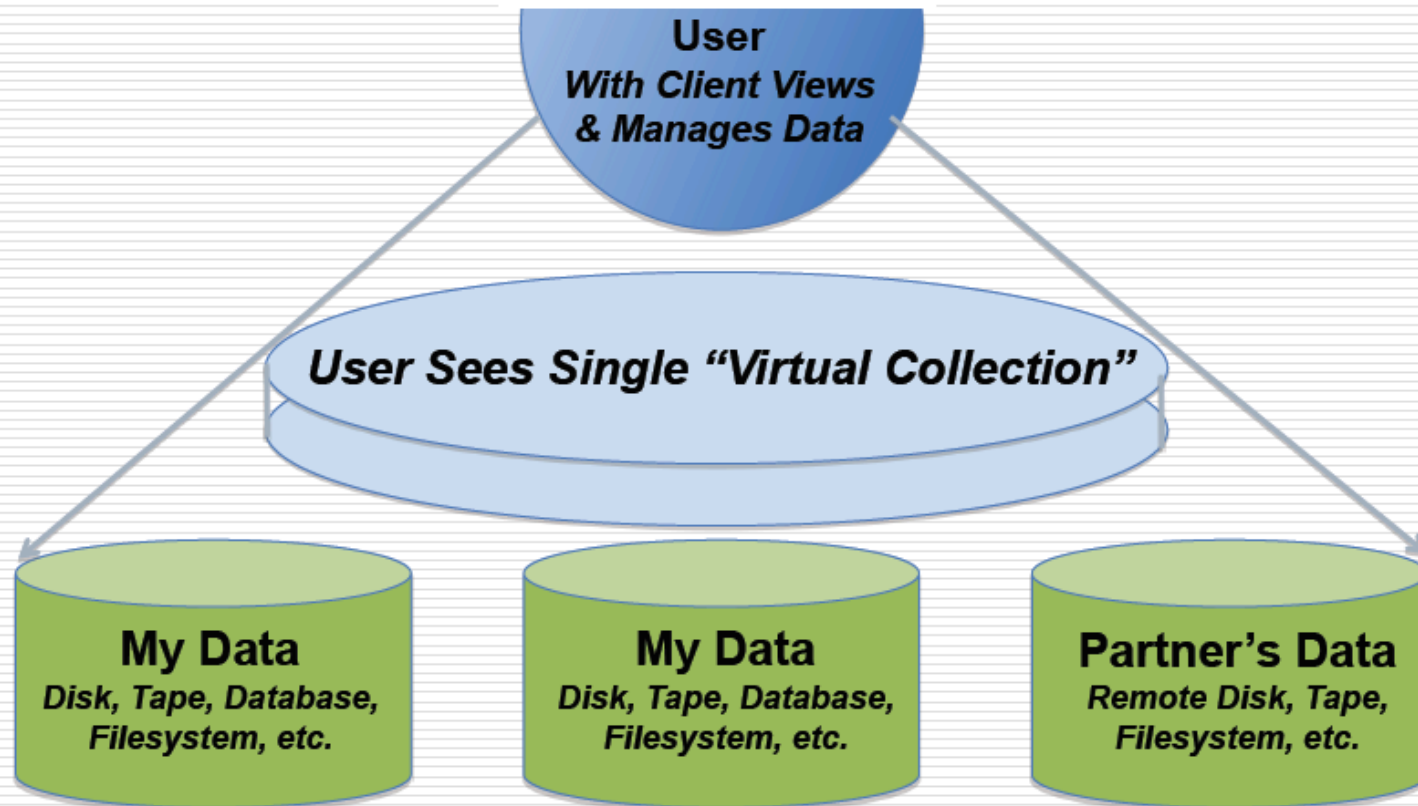| 1) Project Design	2) Source Data	3) Valid Data	4) Input Data	5) Output Data	6) Output Analysis	7) Output Validation

University at Buffalo The State University of New York

etc supported

Department of Geography | Help | Feedback

Data in VHub

- Vhub's "data" goals are focused on facilitating access and use of data and databases, but it is not itself a database-making project
- VHub will host some datasets and will link to others that reside at their owners' sites.
  - Ground-based and remote sensing datasets on eruptions
  - deposit and eruption parameter datasets
  - experimental datasets
- Data assimilation and propagation
  - provide mechanisms for working with datasets at various locations
  - iRODS middleware provides distributed data services in grid-based environment   irods.org

iRODS Shows Unified "Virtual Collection"

User With Client Views & Manages Data

User Sees Single "Virtual Collection"

My Data Disk, Tape, Database, Filesystem, etc.

My Data Disk, Tape, Database, Filesystem, etc.

Partner's Data Remote Disk, Tape, Filesystem, etc.

The iRODS Data System can install in a "layer" over existing or new data, letting you view, manage, and share part or all of diverse data in a unified Collection.

Vhub.org
Collaborative Volcano Research and Risk Mitigation

Collaborating Research Groups

Institution	Primary Contact(s)
Istituto Nazionale di Geofisica e Vulcanologia (Rome, Pisa, and Naples; Italy)	W. Marzocchi, A. Neri, A. Costa
Bristol University (UK)	R.S.J. Sparks
Massey University (New Zealand)	S. Cronin
Geological Survey of Japan	S. Takarada
Institute of Earth Sciences 'Jaume Almera' (Spain)	J. Marti
Institut de Physique du Globe de Paris	J.-C. Komorowski
Université Blaise Pascal, Clermont Ferrand (France)	T.H. Druitt
Earthquake Research Institute (Japan)	T. Koyaguchi
Instituto de Geofísica, Universidad Nacional Autónoma de México	J.L. Macias
Arizona State University (USA)	A. Clarke
Los Alamos National Laboratory (USA)	S. Dartevelle
Università degli Studi de Napoli Frederico II (Italy)	C. Scarpati
Université de Genéve (Switzerland)	C. Bonadonna
Universität Hamburg (Germany)	M. Hort
Barcelona Supercomputer Center (Spain)	A. Folch
U.S. Geological Survey – Cascade Volcano Observatory (USA)	L. Mastin
Smithsonian Institution (USA)	E. Cottrell, L. Siebert

Vhub.org
Collaborative Volcano Research and Risk Mitigation

Partner Volcano Observatories

Institution	Primary Contact(s)
Istituto Nazionale di Geofisica e Vulcanologia (Rome, Pisa, and Naples; Italy)	W. Marzocchi, A. Neri, A. Costa
Osservatorio Vesuviano (Italy)	A. Costa
Observatorio Vulcanológico y Sismológico – Pasto (Colombia)	M. Calvache
Montserrat Volcano Observatory	P. Cole
Université Blaise Pascal, Clermont Ferrand (France)	T.H. Druitt
Earthquake Research Institute (Japan)	T. Koyaguchi
Instituto de Geofísica, Universidad Nacional Autónoma de México	J.L. Macias
Arizona State University (USA)	A. Clarke
Los Alamos National Laboratory (USA)	S. Dartevelle
Università degli Studi de Napoli Frederico II (Italy)	C. Scarpati
Université de Genéve (Switzerland)	C. Bonadonna
Universität Hamburg (Germany)	M. Hort
Barcelona Supercomputer Center (Spain)	A. Folch
U.S. Geological Survey – Cascade Volcano Observatory (USA)	L. Mastin
Smithsonian Institution (USA)	E. Cottrell, L. Siebert

Vhub.org
Collaborative Volcano Research and Risk Mitigation

Development Team

Institution	Primary Contact(s)
Istituto Nazionale di Geofisica e Vulcanologia (Rome, Pisa, and Naples; Italy)	W. Marzocchi, A. Neri, A. Costa
Bristol University (UK)	R.S.J. Sparks
	onin
	karada
	rti
	Komorowski

Institution	Primary Contact(s)
Osservatorio Vesuviano (Italy)	A. Costa
Observatorio Vulcanológico y Sismológico – Pasto (Colombia)	M. Calvache
Montserrat Volcano Observatory	P. Cole

Institution	
Université Blaise Pascal, Clermont Ferrand (France)	T.H. Druitt
Earthquake Research Ins	
Instituto de Geofísica, Un	
Arizona State University	
Los Alamos National Labo	
Università degli Studi de	
Université de Genéve (Sw	
Universität Hamburg (Ge	
Barcelona Supercompute	

Institution	Contacts
University at Buffalo	G. Valentine, M. Jones, S. Gallo, E. Calder, M. Bursik, B. Pitman, D. Moore-Russo, C. Renschler, M. Sheridan, J. Bajo, S. Melander, J.L. Palma
Michigan Technological University	S. Carn, W. Rose
University of South Florida	C. Connor, L. Connor, L. Courtland

U.S. Geological Survey – Cascade Volcano Observatory (USA)	L. Mastin
Smithsonian Institution (USA)	E. Cottrell, L. Siebert

Vhub.org
Collaborative Volcano Research and Risk Mitigation

Advisory Team

Institution	Primary Contact(s)
USGS Volcano Hazards Program	J. Eichelberger
Earthquake Research Institute & IAVCEI President	S. Nakada
University of East Anglia	J. Barclay
San Diego Supercomputer Center	C. Baru
Georgia Institute of Technology	J. Dufek

Institution
Istituto Nazionale di Geofisica e V
Bristol University (UK)

Institution
Osservatorio Vesuviano (Italy)
Observatorio Vulcanológico y Sismológico –
Montserrat Volcano Observatory

Institution	
Université Blaise Pascal, Clermont Ferrand (France)	T.H. Druitt
Earthquake Research Ins	
Instituto de Geofísica, Un	
Arizona State University	
Los Alamos National Lab	
Università degli Studi de	
Université de Genéve (Sw	
Universität Hamburg (Ge	
Barcelona Supercompute	
U.S. Geological Survey – Cascade Volcano Observatory (USA)	L. Mastin
Smithsonian Institution (USA)	E. Cottrell, L. Siebert

P. Cole Komorowski

Institution	Contacts
University at Buffalo	G. Valentine, M. Jones, S. Gallo, E. Calder, M. Bursik, B. Pitman, D. Moore-Russo, C. Renschler, M. Sheridan, J. Bajo, S. Melander, J.L. Palma
Michigan Technological University	S. Carn, W. Rose
University of South Florida	C. Connor, L. Connor, L. Courtland

NSF