



ALERT - Geomaterials Application Form

Date 03/08/2010



Team:	<i>Name of the institution</i> Laboratoire de Mécanique et Génie Civil (LMGC), University Montpellier 2 <i>Name of the equipe</i> Physics and Mechanics of Granular Materials (PMGM)
Responsible ALERT member:	<i>Name</i> Farhang Radjai <i>e-mail</i> franck.radjai@univ-montp2.fr
Link to the website¹:	<i>Link</i> http://www.lmgc.univ-montp2.fr
Size of the research group:	<i>5 senior researchers, 6 post-doc and doctoral students, supported by the technical and administrative service of the laboratory</i>

Researchers	Topic(s) of interest²
<i>Farhang Radjai</i>	<i>Granular materials (quasi-static behavior, avalanches, cohesion) Numerical modeling (DEM, contact dynamics, lattice element method) Statistical physics (force transmission, jamming, texture)</i>
<i>Jean-Yves Delenne</i>	<i>Granular materials (quasi-static behavior, cohesion, unsaturated) Numerical modeling (DEM, computational fluid dynamics, lattice element method)</i>
<i>Said El Youssoufi</i>	<i>Granular materials (quasi-static behavior, cohesion, unsaturated) Soil mechanics (thermo-hygro-mechanics, testing) Numerical simulations (DEM, fluid-grain interactions)</i>
<i>Emilien Azéma</i>	<i>Granular materials (quasi-static behavior, dense flows, particle shape effect) Numerical modeling (DEM, contact dynamics)</i>
<i>Frédéric Jamin</i>	<i>Soil mechanics (thermo-hygro-mechanics, testing)</i>

Post-docs	Topic(s) of interest²
<i>coming</i>	<i>Interdisciplinary Geo-chemo-mechanical Research of Materials</i>

¹ Link to the ALERT page active in the web page in the site of the local institution.

² Each topic should be actively linked to the list of the relative pdf papers.



Present PhD students	Title of the thesis
<i>B. Saint-Cyr</i>	<i>Modélisation numérique de matériaux granulaires cohésifs à particules non convexes : application à la compaction de poudre d'UO₂</i>
<i>J.-P. Gras</i>	<i>Apport des approches micro-mécaniques à l'étude des couplages thermo-hydro-mécaniques dans les sols non saturés</i>
<i>R. Affes</i>	<i>Fragmentation dynamique des matériaux frittés : application au combustible nucléaire</i>
<i>J.-C. Quezada</i>	<i>Mécanismes et variabilité du tassement du ballast ferroviaire</i>
<i>M. Mansouri</i>	<i>Approches par éléments discrets de la liquéfaction des sols : évaluation des risques sous impacts sismiques</i>

Number of international journal papers in the last five years:	36
Number of conference papers in the last three years:	38
Number of invited/keynote lecturers in the last three years:	7

Titles of books (as author or editors) in the last five years

- 1) « Modélisation numérique discrète des matériaux granulaires » (2010), edited by F. Radjai and F. Dubois (Hermès-Lavoisier, Paris).
- 2) « Micromechanics of granular materials » (2009) edited by B. Cambou, M. Jean and F. Radjai (2009), (Wiley- Iste, Berlin), 346 pages, ISBN :1848210752.