

## Publication Highlights

- G. Gremaud: *Maxwell's equations as a special case of deformation of a solid lattice in Euler's coordinates.*  
arXiv :1610.00753 [physics.gen-ph]
- Gérard Gremaud: *Universe and Matter Conjectured as a 3-Dimensional Lattice with Topological Singularities.*  
Journal of Modern Physics 08/2016; 7(12). DOI:10.4236/jmp.2016.712126
- G. Gremaud: *Univers et Matière conjecturés comme un Réseau Tridimensionnel avec des Singularités Topologiques* (V3). available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1934-0
- G. Gremaud: *Univers et Matière conjecturés comme un Réseau Tridimensionnel avec des Singularités Topologiques* (V3). available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1940-1
- G. Gremaud: *Eulerian theory of newtonian deformable lattices - Dislocation and disclination charges in solids.*  
available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1943-2
- Gérard Gremaud: *Théorie eulérienne des milieux déformables - Charges de dislocation et désinclinaison dans les solides.* Edited by Presses Polytechniques et Universitaires Romandes, 01/2013; Presses Polytechniques et Universitaires Romandes., ISBN: 978-2-88074-964-4

## Books

- G. Gremaud: *Eulerian theory of newtonian deformable lattices - Dislocation and disclination charges in solids.*  
available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1943-2
- G. Gremaud: *Univers et Matière conjecturés comme un Réseau Tridimensionnel avec des Singularités Topologiques* (V3). available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1940-1
- G. Gremaud: *Univers et Matière conjecturés comme un Réseau Tridimensionnel avec des Singularités Topologiques* (V3). available on Amazon and CreateSpace edited by G. Gremaud, 07/2016; CreateSpace., ISBN: 978-2-8399-1940-1
- G. Gremaud: *L'univers pourrait-il être un réseau 3D et la matière ordinaire en être des singularités topologiques ?* (V2). e-book, version V2, n'est plus disponible edited by G. Gremaud, 12/2014;
- G. Gremaud: *L'Univers est-il un réseau newtonien dont nous serions des singularités topologiques?* (V1). e-book, version V1, n'est plus disponible edited by G. Gremaud, 07/2014;
- Gérard Gremaud: *Théorie eulérienne des milieux déformables - Charges de dislocation et désinclinaison dans les solides.* Edited by Presses Polytechniques et Universitaires Romandes, 01/2013; Presses Polytechniques et Universitaires Romandes., ISBN: 978-2-88074-964-4
- A.V. Granato, G. Gremaud, F.M. Mazzolai, J. Eckert: *15th International Conference on Internal Friction and Mechanical Spectroscopy.* Edited by A.V. Granato, G. Gremaud, F.M. Mazzolai, J. Eckert (guest editors), 01/2009; Materials Science and Engineering A, Structural Materials: Properties, Microstructure and Processing, Volumes A521–522 (2009), 417 pages.

- R. Schaller, G. Fantozzi, G. Gremaud: *Mechanical Spectroscopy Q-1 2001: With Applications to Materials Science*. Materials Science Forum, vol. 366-368 edited by R. Schaller, G. Fantozzi, G. Gremaud, 01/2001; Trans Tech Publications, Switzerland (2001).
- W. Benoit, G. Gremaud: *Proc. 8th Internat. Conf. Internal Friction and Ultrasonic Attenuation in Solids*. Proceedings de la conférence internationale ICIFUAS-7 edited by W. Benoit, G. Gremaud, 01/1981; Editions de Physique, (Suppl. à) J. de Phys., 42, C5 (1981), 1181 pages.
- ### Book Chapters
- Andrzej Kulik Prof, Andras Kis Dr, Gérard Gremaud Dr, Stefan Hengsberger Prof, Gustavo Luengo Dr, Philippe Zysset Prof, László Forró Prof: *Nanoscale Mechanical Properties – Measuring Techniques and Applications*. Springer Handbook of Nanotechnology, 01/2007;
- R Szoszkiewicz, G Gremaud, B. D. Kulik, AJ Kulik: *How can Ultrasound help with Connecting Friction and Adhesion Hysteresis at Local Scales?*. 01/2004; Springer Netherlands., ISBN: 9048166527
- G. Gremaud: *Experimental methods and mathematical modelling for advanced materials: dislocation-point defects interaction*. Advanced Materials, Edited by A. Raduta, M. Nicoara, L Berta and C. Firu, 01/2002: chapter 2.1; Editura Orizonturi Univeritare, Timisoara, Romania (2002).
- G. Gremaud, S. L. Kustov, O. Bremnes: *Ultrasonic techniques: PUCOT and ACT*. Mechanical Spectroscopy, Materials Science Forum, vol. 366-368 edited by R. Schaller, G. Fantozzi, G. Gremaud, 01/2001: chapter 9.2; Trans Tech Publications, Switzerland (2001).
- G. Gremaud: *Dislocation - Point Defect Interactions*. Mechanical Spectroscopy, Materials Science Forum, vol. 366-368 edited by R. Schaller, G. Fantozzi, G. Gremaud, 01/2001: chapter 3.3; Trans Tech Publications, Switzerland (2001).
- G. Gremaud: *Scanning Acoustic Microscopy: SAM*. Mechanical Spectroscopy, Materials Science Forum, vol. 366-368 edited by R. Schaller, G. Fantozzi, G. Gremaud, 01/2001: chapter 9.4; Trans Tech Publications, Switzerland (2001).
- G. Gremaud, E. Dupas, A. V. Kulik: *8.2 Surface and Local Spectroscopy*. Mechanical Spectroscopy, Materials Science Forum, vol. 366-368 edited by R. Schaller, G. Fantozzi, G. Gremaud, 01/2001: chapter 8.2; Trans Tech Publications, Switzerland (2001).
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- N. A. Burnham, A. Kulik, G. Gremaud: *Tip-Surface interactions*. Procedures in Scanning Probe Microscopy, Edited by R. J. Colton et al, 01/1997: chapter 9.1; John Wiley and Sons, New-York (1997).
- NA Burnham, AJ Kulik, F Oulevey, C Mayencourt, D Gourdon, E Dupas, G Gremaud: *A Beginner's Guide to LPM Materials Properties Measurements*. 01/1997; Springer Netherlands., ISBN: 9401063818
- A Kulik, C Wüthrich, G Gremaud: *Scanning Near-Field Acoustic Microscopy (SNAM) with Nanometer Resolution in the Kilohertz Frequency Range*. 01/1995; Springer US., ISBN: 0306450097
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A KULIK, JE BIDAUX, G GREMAUD, S SATHISH: *CONTINUOUS WAVE ULTRASONICS-an old method with new.* "Ultrasonic Signal Processing", Edited by A. Alippi, 01/1989: chapter CONTINUOUS WAVE ULTRASONICS-an old method with new; Word Scientific, Singapore (1989)., ISBN: 9971508648

## Journal Publications

G. Gremaud: *Maxwell's equations as a special case of deformation of a solid lattice in Euler's coordinates.* arXiv :1610.00753 [physics.gen-ph]

Gérard Gremaud: *Universe and Matter Conjectured as a 3-Dimensional Lattice with Topological Singularities.* Journal of Modern Physics 08/2016; 7(12). DOI:10.4236/jmp.2016.712126

Gérard Gremaud: *On local space-time of loop topological defects in a newtonian lattice (arXiv:1407.1227v3).*

Riccardo Balzan, Alessandro L. Sellerio, Daniele Mari, Arnaud Comment, Gérard Gremaud: *A link between short-range and long-range properties of random sphere packings.* Granular Matter 12/2013; 15(6). DOI:10.1007/s10035-013-0450-8

Gianfranco D'Anna, Alessandro Luigi Sellerio, Daniele Mari, Gérard Gremaud: *Friction and Hertzian contact in granular glass.* Journal of Statistical Mechanics Theory and Experiment 05/2013; 2013(05). DOI:10.1088/1742-5468/2013/05/P05009

Alessandro L Sellerio, Daniele Mari, Gérard Gremaud: *Fractional Brownian motion and anomalous diffusion in vibrated granular materials.* Journal of Statistical Mechanics Theory and Experiment 01/2012; 2012(01). DOI:10.1088/1742-5468/2012/01/P01002

Alessandro L. Sellerio, Daniele Mari, Gérard Gremaud: *Fluidized States of Vibrated Granular Media Studied by Mechanical Spectroscopy.* Solid State Phenomena 01/2012; 184. DOI:10.4028/www.scientific.net/SSP.184.422

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Gerard Gremaud: *Theory of plasticity and anelasticity due to dislocation creep through a multi-scale hierarchy of obstacles.* Materials Science and Engineering A 09/2009; 521. DOI:10.1016/j.msea.2008.09.131

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Andrzej J. Kulik, András Kis, Gérard Gremaud, Stefan Hengsberger, Philippe K. Zysset, László Forró: *Nanoscale Mechanical Properties - Measuring Techniques and Applications.*

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- Delphine Gourdon, Nancy A. Burnham, Andrzej Kulik, Emmanuel Dupas, Frederic Oulevey, Gerard Gremaud, Dimitris Stamou, Martha Liley, Zoltan Dienes, Horst Vogel, Claus Duschl: *The dependence of friction anisotropies on the molecular organization of LB films as observed by atomic force microscopy*.
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