

**List of publications of  
Dominique Jeulin**

December 2006

1. PUBLICATIONS IN JOURNALS AND IN PROCEEDINGS WITH A REVIEWING  
COMMITTEE

REFERENCES

- [1] Jeulin D., Serra J. (1975) Pour reconnaître les inclusions: chartes ou analyseurs de textures?, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, 72, 745-751.
- [2] Hersant T., Jeulin D. (1976) L'échantillonnage dans les analyses quantitatives d'images. Exemples d'application aux mesures des teneurs de phases dans les agglomérés et des inclusions dans les aciers, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, 73, 503.
- [3] Jeulin D., Letailleur J.L., Serra J. (1978) Statistique multidimensionnelle sur les données morphologiques en métallurgie. Cas des agglomérés de minerais de fer, Revue de Métallurgie, Août-Septembre 1978, pp. 503-512.
- [4] Greco A., Jeulin D., Serra J. (1979) The use of the texture analyser to study sinter structure: application to the morphology of calcium ferrites encountered in basic sinters of rich iron ores, Journal of Microscopy, 116, pp. 199-211.
- [5] Jeulin D. (1980) Multi-component random models for the description of complex microstructures, Proc. 5th International Congress for Stereology, Mikroskopie, Vol. 37 S: 130-137.
- [6] Jeulin D., Steiler J.M. (1980), Caractérisation du comportement mécanique du coke métallurgique, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, 77 n°2, pp. 107-127.
- [7] Jeulin D. (1981), Contribution à l'étude de la fragilisation en cours de réduction des agglomérés de minerais riches au moyen de l'analyseur de textures, Cahiers d'Information Technique de la Revue de Métallurgie, 78 n°6, pp. 481-499.
- [8] Jeulin D., Jeulin P. (1982) Caractérisation microgéométrique des surfaces rugueuses au moyen de l'analyseur de textures, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, 79 n° 3, pp. 109-124.
- [9] Jeulin D. (1982) Traitement morphologique des images en microscopie électronique à balayage, Journal de microscopie et de spectroscopie électronique, Vol. 7, pp. 101-104.
- [10] Jeulin D., Steiler J.M. (1983) Caractérisation du comportement mécanique du coke à température ambiante, Cahiers d'Information Technique de la Revue de Métallurgie, 80, pp. 93-100.

- [11] Jeulin D. (1983) Relation between quality and morphology of sinter - texture analysis contribution, Ironmaking and Steelmaking, Vol. 10 n° 4, pp. 145-154.
- [12] Jeulin D. (1983) Morphological SEM Picture Processing, Journal de microscopie et de spectroscopie électronique, Vol. 8, pp. 1-18.
- [13] Jeulin D. (1983) Analyse morphologique quantitative des matériaux multiphasés, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, 80 n° 5, pp. 251-266.
- [14] Blanc M., Jeulin D., Osmont P. (1986) Morphological and chemical analysis of inclusions in steel by SEM picture processing, Proc. 4th European Symposium of Stereology (Göteborg,26-30 August 1985), Acta Stereologica; 5/2: 343-348.
- [15] Jeulin D. (1986) Study of spatial distributions in multicomponent structures by image analysis, Proc. 4th European Symposium of Stereology (Göteborg,26-30 August 1985), Acta Stereologica 1986; 5/2: 233-239.
- [16] Jeulin D. (1987) Random Structure analysis and modelling by mathematical morphology, Invited Lecture, Proc. 5th International Symp. on Continuum Models of Discrete Systems, Nottingham, 14-20 July 1985, A.J.M. Spencer (ed), A.A. Balkema, Rotterdam, pp. 217-226.
- [17] Jeulin D. (1987) Anisotropic Rough Surface Modelling by Random Morphological Functions, Proc. 4th European Symposium of Stereology (Göteborg,26-30 August 1985), Acta Stereologica; 6/2, pp. 183-189.
- [18] Jeulin D., Lenoir E. (1987) Automatic detection of optical textures in coke carbon phase by multi-image analysis, Proc.4th European Symposium of Stereology (Göteborg,26-30 August 1985), Acta Stereologica ; 6/2: 335-340.
- [19] Jeulin D., Osmont P., Larquetoux G. (1987) Simulation of crack propagation in a porous material by image analysis, Proc. I.C.S. VII, Caen, 2-9 Sept. 87, Acta Stereologica; 6/III, pp. 381-386.
- [20] Benoit D., Demagny H., Jeulin D., Osmont P. (1987) Applications métallurgiques de l'analyse d'images en microscopie électronique à balayage, Journal de microscopie et de spectroscopie électronique, Vol. 12, pp. 181-184.
- [21] Jeulin D. (1987) Modélisation des microstructures par des textures aléatoires, Journal de microscopie et de spectroscopie électronique, Vol. 12, pp. 133-138.
- [22] Jeulin D. (1988) On image analysis and micromechanics, Invited Lecture, Proc. Mechanisms and Mechanics of Plasticity, Aussois, 1-10 April 1987, Revue Phys. Appl. vol 23, pp. 549-556.
- [23] Jeulin D. (1988) Développements récents de l'analyse d'images en Sciences des Matériaux, Conférence invitée, Journées d'Automne 1987 de la Société Française de Métallurgie, Mémoires et Etudes Scientifiques de la Revue de Métallurgie, Mars 1988, pp. 135-149.

- [24] Jeulin D. (1988) Mathematical morphology and materials image analysis, Invited Lecture, Proc. 6th Pfefferkorn Conference (Niagara Falls, USA, April 27-May 2 1987), Scanning Microscopy Supplement N°2, pp. 165-183.
- [25] Jeulin D. (1989) Sequential random function models, in Geostatistics, Proc. 3rd International Geostatistics Congress, Sept. 5-9, 1988, Avignon, France, M. Armstrong (ed), Vol. 1, pp. 189-200, Kluwer Academic Publ.
- [26] Daly C., Jeulin D. Lajaunie Ch. (1989) Application of multivariate kriging to the processing of noisy images, in Geostatistics, Proc. 3rd International Geostatistics Congress, Sept. 5-9, 1988, Avignon, France, M. Armstrong (ed), Vol. 2, pp. 749-760, Kluwer Academic Publ.
- [27] Jeulin D. (1989) Some aspects of mathematical morphology for physical applications, Invited Lecture, Proc. ETOPIIM2 Conference (Paris, 29th August-2nd September 1988), Physica A, Vol. 157, pp. 13-20.
- [28] Jeulin D. (1989) Morphological Modeling of images by Sequential Random Functions, Signal Processing, 16, pp. 403-431.
- [29] Bretheau T., Jeulin D. (1989) Caractéristiques morphologiques des constituants et comportement à la limite élastique d'un matériau biphasé Fe/Ag, Revue Phys. Appl., 24, pp. 861-869.
- [30] Kurdy M.B., Jeulin D. (1989) Directional mathematical morphology operations, Proc. ECS 5 (Freiburg, RFA, 3-8 September 1989), Acta Stereologica; 8/2: 473-480.
- [31] Vincent L., Jeulin D. (1989) Minimal paths and crack propagation simulation, Proc. ECS 5 (Freiburg, RFA, 3-8 September 1989), Acta Stereologica; 8/2: 487-494.
- [32] Daly C., Jeulin D., Benoit D., Auclair G. (1990) Application of multivariate Geostatistics to macroprobe mappings in steels, ISIJ International, Vol. 30, N° 7, pp. 529-534.
- [33] Jeulin D. (1990) Analyse morphologique de la répartition spatiale, in Traitement et Analyse d'Images en Microscopie à Balayage et en Microanalyse par Sonde Electronique, pp. H1-H22, éd. par L'ANRT (Groupement Microanalyse et MEB), Paris.
- [34] Jeulin D. (1990) Introduction aux modèles d'images aléatoires pour la microscopie électronique à balayage, in Traitement et Analyse d'Images en Microscopie à Balayage et en Microanalyse par Sonde Electronique, pp. L1-L17, éd. par L'ANRT (Groupement Microanalyse et MEB), Paris.
- [35] Jeulin, D. (1990) Random fields models for fracture statistics, Conférence invitée, Actes du 32ème Colloque de Métallurgie, INSTN, Ed. de la Revue de Métallurgie, n°4, 99-113.
- [36] Pinnamaneni B., Jeulin D., Daly C., Mory C., Tencé M., Colliex Ch. (1991) Multi-spectral linear filtering of high resolution EELS images by Geostatistics, Microscopy Microanalysis Microstructure 2, pp. 107-127.

- [37] Jeulin D., Renard D. (1991) Practical limits of the deconvolution of images by kriging, *Compte-rendu des Journées de Géostatistique*, 6-7 Juin 1991, Fontainebleau. Cahiers de Géostatistique, Fasc. 1, ENSMP, pp. 173-203.
- [38] Jeulin D. (1991) Modèles de Fonctions Aléatoires multivariées. *Sci. Terre*; 30: 225-256.
- [39] Conan V., Gesbert S., Howard C.V., Jeulin D., Meyer F., Renard D. (1992) Geostatistical and morphological methods applied to three-dimensional microscopy, *Journal of Microscopy*, 166, Pt 2, pp. 169-184.
- [40] Jeulin D., Vincent L., Serpe G. (1992) Propagation algorithms on graphs for physical applications, *J. of Visual Communications and Image Representations*, vol. 3, n°2, pp. 161-181.
- [41] Jeulin D., Terol Villalobos I. (1992) Application of the Dead Leaves Model to Powders Morphological Analysis, *Proc. 8th ISS Congress, Irvine, CA, 1991, Acta Stereologica*; 11/SUPPL I: 105-110.
- [42] Jeulin D. (1992) Multivariate random image models, *Proc. 8th ISS Congress, Irvine, CA, 1991, Acta Stereologica*; 11/SUPPL I: 59-66.
- [43] Jeulin D., Kurdy M.B. (1992) Directional mathematical morphology for oriented image restoration and segmentation, *Proc. 8th ISS Congress, Irvine, CA, 1991, Acta Stereologica*; 11/SUPPL I: 545-550.
- [44] Tuzikov A., Soille P., Jeulin D., Bruneel H., Vermeulen M. (1992) Extraction of grid patterns on stamped metal sheets using mathematical morphology, *IEEE*, Oct. 1992, pp. 425-428.
- [45] Jeulin D. (1992) Approche statistique de la microstructure, in: *Caractérisation des poudres et des céramiques*, FORCERAM, J.L. Chermant (éd) Hermès, Paris, pp. 23-37.
- [46] Jeulin D. (1992) Flow and Diffusion in Random Porous Media from Lattice Gas Simulations, in T.M.M. Verheggen (Ed), *Numerical Methods for the Simulation of Multi-Phase and Complex Flow*, Springer-Verlag, pp. 106-123.
- [47] Quenec'h J.L., Coster M., Chermant J.L., Jeulin D. (1992) Study of the liquid-phase sintering process by probabilistic models: application to the coarsening of WC-Co cermets, *Journal of Microscopy*, 168, Pt 1, pp. 3-14.
- [48] Jeulin D., Renard D. (1992) Practical limits of the deconvolution of images by kriging, *Microscopy Microanalysis Microstructure* 3, pp. 333-361.
- [49] Jeulin D. (1993) Random Functions and Fracture Statistics Models, In A. Soares (ed), *Geostatistics Troia '92*, Kluwer Academic Publ., Dordrecht 1993 (*Quantitative Geology and Geostatistics* 5) Vol. 1, pp. 225-236.
- [50] Jeulin D. (1993) Damage simulation in heterogeneous materials from geodesic propagations, *Engineering computations*, vol. 10, pp 81-91.

- [51] Jeulin D. (1993) Morphological Models for Fracture Statistics, Communication to the CMDS7 Conference, Paderborn (14-19 June 1992), Materials Science Forum Vol. 123-125, pp. 505-514, K. H. Anthony and H. J. Wagner (ed), Transtech Publications.
- [52] Baxevanakis C., Jeulin D., Valentin D. (1993) Fracture statistics of single fibre composites specimens, Composites Sciences and Technology, Vol. 48, pp. 47-56.
- [53] Xing Xiu San, Jeulin D., Pineau A. (1993) Derivation of statistical distribution of toughness from statistical distribution of strength, International Journal of Fracture, 61: R11-R17.
- [54] Quenec'h J.L., Coster M., Chermant J.L., Jeulin D. (1993) Etude de la Cinétique de frittage à l'aide de modèles d'ensembles aléatoires, La Revue de Métallurgie-CIT/Science et Génie des Matériaux, Mai 1993, pp. 611-621.
- [55] Jeulin D. (1993) Random models for the morphological analysis of powders", Journal of Microscopy, Vol. 172, Part 1, October 1993, pp. 13-21.
- [56] Jeulin D. (1993) Random image models for microstructure analysis and simulation, Invited Lecture, Tenth Pfefferkorn Conference on Signal and Image Processing in Microscopy and Microanalysis, 16-19 September 1991, Cambridge, UK, Scanning Microscopy Supplement 6, 1992, pp. 121-128.
- [57] Daly C., Jeulin D., Benoit D. (1993) Nonlinear statistical filtering and applications to segregation in steels from microprobe images, Communication to the Tenth Pfefferkorn Conference on Signal and Image Processing in Microscopy and Microanalysis, 16-19 September 1991, Cambridge, UK, Scanning Microscopy Supplement 6, 1992, 137-145.
- [58] Jeulin Dominique (1993) Modèles de changement d'échelle en statistique de rupture, in: Cahiers de Géostatistique, Fasc. 3, ENSMP, pp. 101-105.
- [59] Jeulin D. (1994) Change of scale in random media, Proc. Forum "Geostatistics for the Next Century", Montréal, Canada, 3-5 June 1993, (Quantitative Geology and Geostatistics 6), R. Dimitrakopoulos (ed), Dordrecht, Netherlands: Kluwer Academic Publishers, pp. 235-244.
- [60] Brémond R., Jeulin D. (1994) Random Media and lattice gas simulations, Proc. Geostatistical Simulations Workshop, Fontainebleau 27-28 May 1993, M; Armstrong & P.A. Dowd (ed), Kluwer Academic Publishers, Dordrecht, pp89-105.
- [61] Jeulin D. (1994) Fracture statistics models and crack propagation in random media, Proc. Symposium "Micromechanics of random media", M. Ostoja-Starzewski & I. Jasiuk (ed), Applied Mechanics Reviews, vol 47, N 1, Part 2, Jan 1994, S141-S150.
- [62] Cailletaud G., Jeulin D., Rolland Ph. (1994) Size effect on elastic properties of random composites, Engineering computations, vol 11, N 2, pp. 99-110.
- [63] Jeulin D. (1994) Morphological random media for micromechanics, Invited Lecture, Proc. PROBAMAT Workshop, Cachan, France, 23-25 November 1993, D. Breysse (ed), NATO ASI Series, Vol. 269, Kluwer, pp. 213-224.

- [64] Coster M., Quenec'h J.L., Chermant J.L., Jeulin D. (1994) Probabilistic models and image analysis: tools to describe liquid phase sintered materials, PROBAMAT Workshop, Cachan, France, 23-25 November 1993, D. Breyse (ed), NATO ASI Series, Vol. 269, Kluwer, pp. 403-414.
- [65] Jeulin D., Rossi P. (1994) Probabilistic and Stochastic models, PROBAMAT Workshop, Cachan, France, 23-25 November 1993, D. Breyse (ed), NATO ASI Series, Vol. 269, Kluwer, pp. 39-43.
- [66] Jeulin D. (1994) Random structure models for composite media and fracture statistics, in *Advances in Mathematical Modelling of Composite Materials*, K. Markov (ed), World Scientific Company (Advances in Mathematics for Applied Sciences, vol. 15), pp. 239-289.
- [67] Talbot H., Jeulin D. (1994) Estimation of fiber length and diameter distribution from SEM images, Proc. 6th European Congress for Stereology (Prague, 7-10 September 1993), Acta Stereologica; 13/2, pp. 357-362.
- [68] Brémond R., Jeulin D. (1994) Morphogenesis simulations with lattice gas, Proc. ISMM'94 Conference Mathematical Morphology and its applications to Image Processing, J. Serra & P. Soille (eds), Kluwer, pp. 297-304.
- [69] Quenec'h J.L., Chermant J.L., Coster M., Jeulin D. (1994) Liquid phase sintered materials modelling by random closed sets, Proc. ISMM'94 Conference Mathematical Morphology and its applications to Image Processing, J. Serra & P. Soille (eds), Kluwer, pp. 225-232.
- [70] Jeulin D. (1994) Morphological Models of Change of Scale in Brittle Fracture Statistics, accepted for publication in *Strength and Fracture*, Note N-18/89/G, Ecole des Mines de Paris (1989).
- [71] Brémond R., Jeulin D., Gateau P., Jarrin J., Serpe G. (1994) Estimation of the transport properties of polymer composites by geodesic propagation, *J. Microsc.*, vol. 176, Pt 2, Nov. 1994, pp. 167-177.
- [72] Brémond R., Jeulin D., Abouaf M., His (1995) Simulation of the filtration of cast iron, *Revue de Métallurgie CIT/Science et Génie des Matériaux* N<sup>o</sup> 5, pp. 593-606.
- [73] Jeulin D., Terol Villalobos I., Dubus A. (1995) Morphological analysis of UO<sub>2</sub> powder using a dead leaves model, *Microscopy, Microanalysis, Microstructure*, Vol. 6, pp. 371-384.
- [74] Baxevanakis C., Jeulin D., Renard J. Fracture Statistics of a Unidirectional Composite (1995), *International Journal of Fracture*, vol. 73 N<sup>o</sup> 2, pp. 149-181.
- [75] Breyse D., Jeulin D. (1995) Descriptive and predictive power of probabilistic models for materials, Proceedings of the 1995 ASCE Conference, Boston, USA, pp. 1458-1461.

- [76] Laurence P., Jeulin D. (1995) Modèle probabiliste de la rugosité obtenue par électro-érosion, Communication aux Journées de Géostatistique 1995, Cahiers de Géostatistique. N-08/95/MM, Paris School of Mines Publication.
- [77] Berdin C., Cailletaud G., Jeulin D. (1995) Modeling the reliability of brittle fracture. Application to Ceramics. In: Applications of Statistics and Probability, Lemaire M., Favre J.L., Mébarki A. (eds), Balkema, pp. 131-137.
- [78] Baxevanakis C., Jeulin D., Renard J. (1995) Statistical Modeling of the Fracture of Laminate Composites. In: Applications of Statistics and Probability, Lemaire M., Favre J.L., Mébarki A. (eds), Balkema, pp. 203-208.
- [79] Jeulin D. (1995) Modèles probabilistes de rupture des matériaux hétérogènes: effets de taille et effets d'échelle, Annales des Ponts et Chaussées n<sup>o</sup> 74, pp. 79-87.
- [80] Jeulin D., Viero T. (1995) Morphological extraction of line networks from noisy low-contrast images, J. of Visual Communications and Image Representations, vo. 6, n<sup>o</sup>4, pp. 335-347.
- [81] Jeulin D., Le Coënt A. (1996) Morphological modeling of random composites, Proceedings of the CMDS8 Conference (Varna, Bulgaria, 11-16 June 1995), K.Z. Markov (ed), World Scientific Publishing Company, pp. 199-206.
- [82] Jeulin D. (1996) Random structure generation by lattice gas. Invited lecture, 9th International Congress of Stereology, Copenhagen, 21-25 August 1995, Acta Stereologica. , Vol. 15, Number 1, February 1996: 31-43.
- [83] Le Coënt A., Jeulin D. (1996) Bounds of effective physical properties for random polygons composites, "Comptes Rendus de l'Académie des Sciences de Paris", t. 323, Série II b, p. 299-306.
- [84] Jeulin D., Laurence P. (1996) Probabilistic model of rough surfaces obtained by electro-erosion, Proc. ISMM'96 Conference, Atlanta, USA (11-13 May 1996), P. Maragos, R.W. Schafer, M.A. Butt (eds), Kluwer Academic Publishers, pp. 289-296.
- [85] Berdin C., Cailletaud G., Jeulin D. (1996), Brittle failure prediction of ceramics using a multiscale approach, J. American Ceramic Society, vol. 79 (11), pp. 2825-2832.
- [86] Lebon B., Baxevanakis C., Jeulin D., Renard J. (1996) Comportement statistique à rupture des composites stratifiés, Comptes-Rendus des dixièmes journées nationales sur les Composites (Paris 29-31 October 1996), D. Baptiste & A. Vautrin (eds), vol. 2, pp. 607-619.
- [87] Talbot H., Jeulin D., Hanton D. (1996) Image analysis of insulation mineral fibres, Microscopy, Microanalysis, Microstructure, Vol. 7, pp. 361-368.
- [88] Demarty C.H., Grillon F., Jeulin D. (1996) Study of the contact permeability between rough surfaces from confocal microscopy, Microscopy, Microanalysis, Microstructure, Vol. 7, pp. 505-511.

- [89] Decker L., Jeulin D. (1996) Texture simulation by lattice gas from reaction-diffusion models, *Microscopy, Microanalysis, Microstructure*, Vol. 7, pp. 565-571.
- [90] Jeulin D., Laurence P. (1996) Morphological simulation of the roughness transfer on steel sheets, *Microscopy, Microanalysis, Microstructure*, Vol. 7, pp. 541-547.
- [91] Quenec'h J.L., Jeulin D., Coster M., Chermant J.L. (1996) Example of application of probabilistic models: determination of the kinetics parameters during liquid phase sintering, *Microscopy, Microanalysis, Microstructure*, Vol. 7, pp. 573-580.
- [92] Quenec'h J.L., Jeulin D., Coster M., Chermant J.L. (1997) Approach of Liquid Phase Sintering Process by Probabilistic Models, in *Proc. of the Symposium on the Advances in the Theory and Applications of Random Sets (Fontainebleau, 9-11 October 1996)*, D. Jeulin (ed), World Scientific Publishing Company, pp. 231-249.
- [93] Jeulin D. (1997) Dead Leaves Models: from space tessellation to random functions, in *Proc. of the Symposium on the Advances in the Theory and Applications of Random Sets (Fontainebleau, 9-11 October 1996)*, D. Jeulin (ed), World Scientific Publishing Company, pp. 137-156.
- [94] Decker L., Jeulin D. (1997) Random Texture Simulation by Multi-Species Lattice-Gas Models, *Journal of Electronic Imaging*, 6(1), pp. 78-93.
- [95] Jeulin D., Laurence P. (1997) Simulation of rough surfaces by morphological random functions, *Journal of Electronic Imaging* 6(1), pp. 16-30.
- [96] Kanaun S.K., Jeulin D. (1997) Effective field method in the problem of electromagnetic wave propagation through the medium with spherical inclusions, *Journal of Electromagnetic Waves and Applications*, Vol. 11, 1531-1565, 1997.
- [97] Jeulin D., Savary L. (1997), Prediction of the permittivity of random composites by morphological modeling, Invited lecture, ETOPIM 4 Conference (Moscow-St-Petersburg, 23-30 July 1996), *Physica A* 241, 310-319.
- [98] Jeulin D., Savary L. (1997) Effective Complex Permittivity of Random Composites, *Journal de Physique I France, section Condensed Matter*, 1123-1142.
- [99] Vieilleveigne S., Jeulin D., Renard J., Sicot, N. (1997) Modelling of the fatigue behaviour of a unidirectional glass epoxy composite submitted to fatigue loadings, *Proc. International Conference on Fatigue of Composites, Paris (3-5 June 1997)*, S. Degallaix, C. Bathias, R. Fougères (eds), 424-430.
- [100] Brémond R., Jeulin D., Abouaf M., His Ch. (1997) Modelling the filtration of cast-iron by lattice gas, in *Proc. Fifth International Symposium on the Physical Metallurgy of Cast Iron, Nancy, Oct. 3-5 1994*, G. Lesoult and J. Lacaze (eds), *Advanced Materials Research Vols 4-5*, Scitec Publications, 521-528.
- [101] Jeulin D. (1998) Probabilistic models of structures, Invited Key-Note Lecture, Workshop PROBAMAT 21st Century, Perm, Russia, 10-12 September 1997, G.N. Frantziskonis (ed), *NATO ASI Series vol. 46*, 233-257.

- [102] Charollais F., Bauer M., Coster M., Jeulin D., Trotabas M. (1997) Modelling the structure of a nuclear ceramic obtained by solid phase sintering, *Acta Stereologica*, Vol. 16, n° 3, 315-321.
- [103] Jeulin D., Chardin H., Grillon F., Jeandin M., N'Guyen F., (1997) Simulation of the shot peening by random processes, *Acta Stereologica*, Vol. 16, n° 3, 299-306.
- [104] Baxevanakis C., Jeulin D., Lebon B., Renard J. (1998) Fracture statistics modeling of laminate composites, *International Journal of Solids and Structures*, Vol. 35 n°19, 2505-2521.
- [105] Lebon B., Baxevanakis C., Jeulin D., Renard J. (1998) Fracture statistics of a laminate composite, *Composites Science and Technology*, Vol. 58, 765-771.
- [106] Vieilleveigne S., Jeulin D., Renard J., Sicot, N. (1998) Modélisation de l'endommagement en fatigue d'un composite verre-epoxy unidirectionnel soumis à de la flexion, *Revue des Composites et des matériaux avancés*, Volume 8, 85-98.
- [107] Decker L., Jeulin D., Tovina I. (1998) 3D morphological analysis of the connectivity of a porous medium, *Acta Stereologica*, Vol. 17, n° 1, 107-112.
- [108] Jeulin D. (1998) Morphological modeling of surfaces, *Surface Engineering* Vol. 14 N° 3, 199-204.
- [109] Jeulin D. (1998) Bounds of physical properties of some random structures models, *Proceedings of the CMDS9 Conference (Istanbul, Turkey, 29 June-3 July 1998)*, E. Inan and K.Z. Markov (eds), World Scientific Publishing Company, pp. 147-154.
- [110] Decker L., Jeulin D. (1999) 3D Spatial time structure simulations by reaction-diffusion models, *Acta Stereologica*, Vol. 18, n° 2, 247-254.
- [111] Kanaun S.K., Jeulin D. (1999) The influence of spatial distributions of inhomogeneities on effective dielectric properties of composite materials (effective field approach), *Progress in Electromagnetic Research, PIER22*, 51-84.
- [112] Cochelin E., Borit F., Frot G., Jeandin M., Decker L., Jeulin D., Al Taweel B., Michaud V., Noël P. (1999) Oxidation and Particle Deposition Modeling in Plasma Spraying of Ti-6Al-4V/SiC Fiber Composites, *Journal of Thermal Spray Technology*, Vol. 8 (1), March 1999, 117-124.
- [113] Jeandin M., Borit F., Guipont V., Decker L., Jeulin D., Suzuki M., Sodeoka S. (1999) Lattice gas modelling in thermal spraying, *Surface Engineering* Vol. 15 N° 3, 191-194.
- [114] Jeulin D. (1999) Milieux Aléatoires et Passage Micro-Macro, Invited lecture, *Proc. 41ème Colloque de Métallurgie de l'INSTN, Saclay, 23-25 Juin 1998*, J. Phys. IV France 9, Pr4-191-Pr4-200.
- [115] Savary L., Jeulin D., Thorel A. (1999) Morphological analysis of carbon-polymer composite materials from thick sections, *Acta Stereologica*, vol. 18, No.3, 297-303.

- [116] Jeulin D. (2000) Random texture models for materials structures, *Statistics and Computing*, vol. 10, 121-131.
- [117] Aubert A., Jeulin D. (2000) Estimation of the influence of second and third order moments on random sets reconstructions, *Pattern Recognition*, vol. 33/6, pp. 1083-1103.
- [118] Decker L., Jeulin D. (2000) Simulation 3D de matériaux aléatoires polycristallins, *Revue de Métallurgie - CIT/Science et Génie des Matériaux*, Feb. 2000, pp. 271-275.
- [119] Aubert A., Jeulin D. (2000) Classification morphologique de surfaces rugueuses, *Revue de Métallurgie - CIT/Science et Génie des Matériaux*, Feb. 2000, pp. 247-262.
- [120] Jeulin D. (2000) Analyse d'images et reconnaissance de formes en matériaux: introduction au thème, *Revue de Métallurgie - CIT/Science et Génie des Matériaux*, Feb. 2000, pp. 147-149.
- [121] Talbot H., Lee Th., Jeulin D., Hanton D., Hobbs L.W. (2000) Image Analysis of Insulation Mineral Fibres, *Journal of Microscopy*, Vol. 200, Pt 3, December 2000, pp. 251-268.
- [122] Jeulin D. (2000) Obituary: Georges Matheron, *Advances in Applied Probability*, Vol. 32, pp. 1190-1192.
- [123] Jeulin D. (2000) Professor Georges Matheron, *Image Analysis and Stereology*, Vol. 19, N°3, pp. XIX-XX.
- [124] Aubert A., Jeulin D., Sentz (2000) Surface analysis of steel plates by long wavelength reflectometry. Models and experiments, submitted for publication to *Journal of Optics A: Pure and Applied Optics*, N-32/00/MM, Paris School of Mines Publication.
- [125] Barbe F., Decker L., Jeulin D., Cailletaud G. (2001) Intergranular and intragranular behavior of polycrystalline aggregates. Part 1: F.E. model, *International Journal of Plasticity*, 17 (4), pp. 513-536 .
- [126] Jeulin D., Monnaie P., Péronnet F. (2001) Gypsum morphological analysis and modeling, *Cement and Concrete Composites*, Vol. 23/2-3, April/June 2001, pp. 299-311.
- [127] Dequiedt A.S., Coster M., Chermant J.L., Jeulin D. (2001) Towards a model of concrete mesostructure, *Cement and Concrete Composites*, Vol. 23/2-3, April/June 2001, pp. 289-297.
- [128] Staicu D.M., Jeulin D., Beauvy M., Laurent M., Berlanga C., Negrello N., Gosset D. (2001) Effective thermal conductivity of heterogeneous materials: calculation methods and application to different microstructures, communication in the 15th European Conference on Thermophysical Properties (15th ECTP), September 5-9, 1999 Würzburg, Germany. *High Temperatures-High Pressures*, vol. 33 N°3, pp. 293-301.

- [129] Decencière E., Jeulin D. (2001) Morphological decomposition of the surface of an internal combustion engine cylinder in view of characterizing wear, *Wear*, Vol. 249, pp. 482-488.
- [130] Delisée Ch., Jeulin D., Michaud F. (2001) Caractérisation morphologique et porosité en 3D de matériaux fibreux cellulosiques, *C.R. Académie des Sciences de Paris*, t. 329, Série II b, pp. 179-185, 2001.
- [131] Bruner Y., Baxevanakis C., Renard J., Jeulin D., Thionnet A. (2001) Multiaxial Fracture of Laminate Composites: Statistics of Defects, submitted for publication to The Society of Materials Sciences of Japan (JPSMS), Communication to International Symposia on Materials Science for the 21st Century (ISMS-21), May 21-26, 2001, Osaka University Convention Center. N-01/01/MM, Paris School of Mines Publication.
- [132] Deléglise F., Berger M.H., Jeulin D., Bunsell A.R. (2001) Microstructural stability and room temperature mechanical properties of the Nextel 720 fibre, *Journal of the European Ceramic Society*, Vol. 21, pp. 569-580.
- [133] Kanaun S.K., Jeulin D. (2001) Elastic properties of hybrid composites by the effective field approach, *Journal of the Mechanics and Physics of Solids*, Vol. 49, pp. 2339-2367.
- [134] Delarue A., Jeulin D. (2001) Multi-scale simulations of spherical aggregates, communication to the 8th European Congress for Stereology, Bordeaux, 4-7 September 2001, *Image Analysis and Stereology*, Vol. 20, N°3, pp. 181-186.
- [135] Kärkkäinen S., Vedel Jensen B.V., Jeulin D. (2001) On the orientational analysis of planar fibre systems from digital images, *Journal of Microscopy*, Vol. 207, Pt 1, July 2002, pp. 69-77.
- [136] Jeulin D. (2002) Spatial Statistics and Micromechanics of Materials, Invited lecture, Proceedings of the Conference on Spatial Statistics and Statistical Physics, Wuppertal, 5-9 march 2001, *Lecture Notes in Physics 600*, K.R. Mecke, D. Stoyan Eds., Springer Verlag, pp. 3-36, 2002.
- [137] Fricout G., Jeulin D., Cullen Mc Ewen L., Harper I.S., Bertram J.F. (2002) 3-D Skeletonization of ureteric trees in developing kidneys, in: *Mathematical Morphology, Proceedings of the VIth International Symposium-ISMM'2002*, Sydney, 3-5 April 2002, H. Talbot & R. Beare (eds), CSIRO Publishing, pp. 157-164.
- [138] Decencière E., Jeulin D. (2002) Topography Characterization of Engineering Surfaces using Mathematical Morphology, in: *Mathematical Morphology, Proceedings of the VIth International Symposium-ISMM'2002*, Sydney, 3-5 April 2002, H. Talbot & R. Beare (eds), CSIRO Publishing, pp. 117-125.
- [139] Fricout G., Cullen Mc Ewen L., Harper I.S., Jeulin D., Bertram J.F. (2002) A quantitative method for analysing 3-D branching in embryonic kidneys; development of a technique and preliminary data, communication to the 8th European Congress for Stereology, *Image Analysis and Stereology*, Vol. 21, N°1, pp. 37-41.

- [140] Forest S., Cailletaud G., Jeulin D., Feyel F., Galliet I., Mounoury V., Quilici S., (2002) Introduction au calcul de microstructures, Mécanique et Industries, Vol. 3 N°5, pp. 439-456.
- [141] Jeulin D. (2002) Modelling random media, Invited lecture, 8th European Congress for Stereology, Image Analysis and Stereology, Vo. 21, Suppl. 1, pp. S31-S40.
- [142] Cullen-McEwen L.A., Fricout G., Harper I.S., Jeulin D., Bertram J.F. (2002) Quantitation of 3D ureteric branching morphogenesis in cultured embryonic mouse kidney, *Int J Dev Biol* 46(8), pp.1049-1055.
- [143] Bruner Y., Jeulin D., Renard J., Thionnet A. (2002) Probabilistic modelling of composite laminate damage, communication to "Matériaux 2002" (Tours, 21-25 October 2002), N-14/02/MM, Paris School of Mines Publication.
- [144] Delarue A., Jeulin D. (2002) Homogenization of dielectric properties of random nanocomposites, communication to "Matériaux 2002" (Tours, 21-25 October 2002), N-12/02/MM, Paris School of Mines Publication.
- [145] Kanit T., Forest S., Mounoury V., Jeulin D. (2002) Determination of the representative volume element for homogenization of a two-phase random medium, communication to "Matériaux 2002" (Tours, 21-25 October 2002), N-15/02/MM, Paris School of Mines Publication.
- [146] Cailletaud G., Forest S., Jeulin D., Feyel F., Galliet I., Mounoury V., Quilici S. (2003) Some elements of microstructural mechanics, *Computational Materials Science*, Vol. 27, pp. 351-374
- [147] Delarue A., Jeulin D. (2003) 3D Morphological characterization of composite materials with spherical aggregates, *Image Analysis and Stereology*, Vol. 22, N°3, pp.153-161.
- [148] Berger M.H., Jeulin D. (2003) Statistical Analysis of the failure stresses of ceramic fibres: dependence of the Weibull parameters on the gauge length, diameter variation and fluctuation of defect density, *Journal of Materials Sciences*, Vol. 38, pp. 2913 - 2923.
- [149] Kanit T., Forest S., Galliet I., Mounoury V., Jeulin D. (2003) Determination of the size of the representative volume element for random composites: statistical and numerical approach, *International Journal of solids and structures*, Vol. 40, pp. 3647-3679.
- [150] Paciornik S., Gomes O.F. M., Delarue A., Schamm S., Jeulin D., Thorel A. (2003) Multi-scale analysis of the dielectric properties and structure of resin/carbon-black nanocomposites, *European Physical Journal-Applied Physics*, Vol. 21, pp. 17-26.
- [151] Bron F., Jeulin D. (2004) Modeling a food microstructure by random sets, *Image Analysis and Stereology*, Vol. 23, N°1, pp. 33-44.

- [152] Fricout G. Jeulin D. (2004) Analisis de imagen y morfología matemática para la caracterización en línea del aspecto de las superficies pintadas, *Pinturas y Acabados*, Vol. XLVI, N° 292, Junio 2004, pp. 6-13.
- [153] Jeulin D., Forest S., Kanit T. (2004) Representative Volume Element: a statistical point of view, *Proceedings of the Conference Continuum Models of Discrete Systems (CMDS 10) Shosh Resort, Israel (June 30th-July 4th 2003)*, D. Bergman et al. (eds), Kluwer Academic Publishers, pp. 21-36.
- [154] Jeulin D. (2005) Random Structures in Physics, in: "Space, Structure and Randomness", *Contributions in Honor of Georges Matheron in the Fields of Geostatistics, Random Sets, and Mathematical Morphology; Series: Lecture Notes in Statistics*, Vol. 183, Bilodeau M., Meyer F., Schmitt M. (Eds.), 2005, XIV, Springer-Verlag, pp. 183-222.
- [155] Cain J.E., Nion Th., Jeulin D., Bertram J.F. (2005) Exogenous BMP4 amplifies asymmetric ureteric branching in the developing mouse kidney *in vitro*, *Kidney International*, Vol. 67 (2), pp. 420-431.
- [156] Cullen-McEwen L., R.J. Young, G. Fricout, D. Jeulin, I.S. Harper, F. Costantini and J.F. Bertram (2004) Imaging tools for analysis of the ureteric tree in the developing mouse kidney. In: Paddock S.W. (ed). *Confocal Microscopy. Methods and Protocols*. 2nd edition. *Methods in Molecular Biology Series*. Humana Press. (invited book chapter; in press).
- [157] Bornert M., Chaix J.M., Doumalin P., Dupré J.C., Fournel Th., Jeulin D., Maire E., Moreaud M., Moulinec H. (2004) Mesure tridimensionnelle de champs cinématiques par imagerie volumique pour l'analyse des matériaux et des structures, *I2M (Instrumentation, Mesure, Métrologie)*, Vol. 5, N°1-2.
- [158] Caciú C., Etienne Decencière E., Jeulin D. (2005) Stochastic shape optimisation, in *Mathematical Morphology: 40 Years on: 7th ISMM*. Paris, April 18-20, 2005: Dordrecht: Springer., C. Ronse, L. Najman, and E. Decencière, Eds. p. 333-342.
- [159] Almahbobi G., Hedwards S., Fricout G., Jeulin D., Bertram J.F., Risbridger G.P. (2005) Computer-based detection of neonatal changes to branching morphogenesis reveals different mechanisms of and predicts prostate enlargement in mice haplo-insufficient for bone morphogenetic protein 4, *The Journal of Pathology*, Volume 206, Issue 1, May 2005, Pages: 52-61
- [160] Parra-Denis E., Ducottet Ch., Jeulin D. (2005) 3D Image analysis of intermetallic inclusions, in *Proceedings of the 9th European Congress for Stereology*, Zakopane (Poland), May 10-13, 2005.
- [161] Fricout G., Jeulin D. (2005) Texture analysis by flooding trees, in *Proceedings of the 9th European Congress for Stereology*, Zakopane (Poland), May 10-13, 2005.
- [162] Jeulin D., Moreaud M. (2005) Multi-scale simulation of random spheres aggregates-Application to nanocomposites, in *Proceedings of the 9th European Congress for Stereology*, Zakopane (Poland), May 10-13, 2005.

- [163] Ericout G., Jeulin D. (2005) Optical properties of rough surfaces, submitted for publication to International Journal of Computer Vision.
- [164] Budyn E.R.L., Funfschilling, Jeulin D., Meunier A., Hoc Th. (2005) Effect of anisotropy on strain localization of cortical bone using a multiscale modelling, submitted for publication to Journal of Biomechanics.
- [165] Denis L., Fournier C. , Fournel T., Ducottet C., Jeulin D. (2006) Direct extraction of the mean particle size from a digital hologram. Applied Optics, special issue on Digital Holography, 2006. 45(5): p. 944-952.
- [166] Kanit T., N'Guyen F., Forest S., Jeulin D., Reed M., Singleton S. (2006) Apparent and effective physical properties of heterogeneous materials: representativity of samples of two materials from food industry. Computer Methods in Applied Mechanics and Engineering, 2006. 195(33-36): p. 3960-3982.
- [167] Parra-Denis E., Ducottet Ch., Jeulin D. (2006) 3DImage Analysis of Intermetallic Inclusions, accepted for publication in International Journal of Microstructure and Materials.
- [168] Denis L., Fournel Th., Fournier C. ,Jeulin D. (2006) Reconstruction of the rose of directions from a digital micro-hologram of fibers, accepted for publication in Journal of Microscopy.
- [169] Caciuc C. A., Decencière E., Jeulin D. (2006) A 3D numerical approach for the tribological analysis of hydrodynamic contacts. Paper submitted to Image Analysis & Stereology. N-18/06/MM, June 23 2006.
- [170] Caciuc C. A., Decencière E., Jeulin D. (2006) Numerical analysis of the consequences of rugosity modifications in 3D hydrodynamic contacts. Paper submitted to Tribology Transactions. June 13 2006. N-13/06/MM.
- [171] Vincent Ch., Caciuc C. A., Monteil G., Decencière E., Jeulin D. (2006) Friction analysis in laser textured surface lubricated contacts. Paper submitted to Tribology Transactions. June 13 2006. [N-14/06/MM].

## 2. OTHER PUBLICATIONS

### REFERENCES

- [1] Jeulin D., Serra J. (1976) Automatic recognition of non-metallic stringers in steel, Proc. 4th International Congress of Stereology (Washington, 1975), NBS Special Publication, pp. 265-268.
- [2] Hersant T., Jeulin D., Parnière P. (1976), Notions de base de morphologie mathématique utilisées en métallographie quantitative, C.I.T. du C.D.S., n°6, pp. 1449-1515.
- [3] Jeulin D. (1976) Introduction à l'analyse factorielle des correspondances. Exemples d'application à la Morphologie Mathématique, publication IRSID RFP 171.

- [4] Jeulin D., Letailleur J.L., Schneider M. (1977), A new way of quantification of iron ore sinter morphology, Proc. Symposium on agglomeration (Atlanta), A.I.M.E. publication, chap. 29, pp. 526-537.
- [5] Hersant T., Jeulin D., Parnière P. (1976-1977) Basic notions of mathematical morphology used in quantitative metallography, Newsletter 76 in Stereology, pp. 17-78; Newsletter 77 in Stereology, pp. 81-102, edited by G. Ondracek, Karlsruhe.
- [6] Jeulin D. (1978), Description du réseau poreux macroscopique de coques moulés par un modèle morphologique, Actes du Symposium "Analyse quantitative des microstructures en sciences des matériaux, biologie et médecine (Caen 1977), Special Issues of Practical Metallography, n°8, Riederer Verlag, pp. 253-263.
- [7] Jeulin D. (1978) Etude des voisinages entre phases d'un solide multiphasé à l'aide des surfaces spécifiques de contact - application aux agglomérés de minerais de fer, Proc. Symposium international "Quantitative Metallography" (Florence), pp. 101-110, édité par l'Association Italienne de Métallurgie.
- [8] Ivanier L., Jeulin D. (1978) Synthèse de quelques travaux récents concernant la structure et la qualité de l'aggloméré de minerais de fer, C.I.T. du C.D.S., n°2, pp. 343-355.
- [9] Jeulin D. (1978) Amélioration des performances des hauts fourneaux: recherche des relations entre morphologie et qualité des agglomérés, Rapport IRSID RE 578, Rapport final CECA (convention n°6 220. AA/3/304).
- [10] Jeulin D., Le Corre C., Kayser B. (1979) Etude de la structure en place de deux gâteaux d'aggloméré de minerais lorrains préparés dans des conditions d'allumage différentes, C.I.T. du C.D.S., n°10, 1149.
- [11] Celeski J. C., Jeulin D., Schneider M. (1979) Etude quantitative du réseau poreux macroscopique de trois coques moulés, C.I.T. du C.D.S., n°4, 507.
- [12] Le Corre C., Kayser B., Celeski J.C., Jeulin D. (1981) In situ mineralogical and morphological investigations on industrial sinter cakes, Proc. 3rd International Symposium on agglomeration (Nürnberg, 6-8 May 1981), pp. I 21-35.
- [13] Jeulin D. (1981) Mathematical Morphology and multiphase materials, Invited Lecture, Proc. 3rd European Symposium of Stereology, Stereol. Jugosl. vol. 3 suppl. 1 - pp. 265-286.
- [14] Jeulin D., Jeulin P. (1981) Synthesis of Rough Surfaces by Random Morphological Models, Proc. 3rd European Symposium of Stereology, Stereol. Jugosl. 1981; vol. 3, suppl. 1: 239-246.
- [15] Jeulin D. (1981) Improvement of blast furnace performance: research into relations between morphology and quality of sinters, E.E.C. Publication EUR 6280.
- [16] Jeulin D., Steiler J.M., Duchêne J.M., Isler D. (1982), New means for the evaluation of coke quality in the blast furnace, Proc. 41st Ironmaking Conference, Pittsburgh, USA, edited by AIME.

- [17] Jeulin D. (1982) Analyse quantitative des images et morphologie, publication de l'IRSID RFP 333.
- [18] Jeulin D. (1983) Quantitative Morphology and quality of iron ore sinters, Proc. 42nd Conference Ironmaking, Atlanta, USA, édité par l'AIME.
- [19] Steiler J.M., Jeulin D., Nicolle R. (1983) Influence des métaux alcalins sur les propriétés mécaniques du coke à haute température dans les conditions du haut fourneau, rapport final CECA (Convention n° 7210 -AA/307).
- [20] Blanc M., Jeulin D., Osmont P. (1985) Analyse morphologique et chimique d'inclusions dans les aciers par traitement d'images de microscopie électronique à balayage, Revue des élèves de l'ENSMP, pp. 33-35.
- [21] Demagny H., Guénard C., Jeulin D., Tassot P. (1985) Quantitative way of characterization of thermal shock response and structure for industrial refractory materials, Proc. "Science of Ceramics 13", Orléans, 9-11 September 1985.
- [22] Ondracek G., Jeulin D., Ebel B. (1985) The properties-microstructure relationship of composite consisting of five phases, Proc. Advanced Materials Research and Development for Transport Conference (Strasbourg, November 1985), p. 187.
- [23] Bernard, Duchêne, Vogt, Jeulin, Steiler, Bourrat, Rouzaud (1986) Effect of rank and of interactions of coals on experimental cokes properties, Proc. 5th International Ironmaking Congress AIME 86 (Washington, 6-8 April 1986).
- [24] Jeulin D., Marlière E., Steiler J.M. (1986) Laboratory simulation and investigation of iron ore sintering process, Proc. 5th International Ironmaking Congress AIME 86 (Washington, 6-8 April 1986).
- [25] Jeulin D. (1988) Sequential Random functions for image modeling and simulations, Invited Lecture, Proc. Joint Meeting Electron Microscopy Society of America, Microbeam Analysis Society, Milwaukee, Wisc. 7-12 August 1988, USA, Microbeam Analysis, pp. 9-13, D. E. Newbury (ed), San Francisco Press.
- [26] Sasson G., Benoit D., Jeulin D. (1989) Use of correlation functions for studies of segregations in steel and their relation to hardness, Proc. 12th ICXOM Conference (Cracow, Poland, 28 Aug. 1 Sept. 1989), Vol. 2, pp. 574-577.
- [27] Benoit D., Auclair G., Daly C., Jeulin D. (1989) Use of multivariate Geostatistics for study of segregation in a macroprobe mode, Proc. 12th ICXOM Conference (Cracow, Poland, 28 Aug. 1 Sept. 1989), Vol. 2, pp. 535-540.
- [28] Gesbert S., Howard V., Jeulin D., Meyer F. (1990) The use of basic morphological operations for 3D biological image analysis, Transactions of the Royal Microscopical Society, New Series Vol. 1: MICRO 90, pp. 293-296, H. Y. Elder (ed), Adam Hilger, Bristol.
- [29] Conan V., Howard V., Jeulin D., Renard D., Cummins P. (1990) Improvements of 3D confocal microscope images by geostatistical filters, Transactions of the Royal Microscopical Society, New Series Vol. 1: MICRO 90, pp. 281-284, H. Y. Elder (ed), Adam Hilger, Bristol.

- [30] Berdin C., Baptiste D., Jeulin D., Cailletaud G. (1991) Failure models for brittle materials, in J. G. M. van Mier et al. (eds), *Fracture Processes in Concrete, Rocks and Ceramics*, E. & F.N. Spon, London, pp. 83-92.
- [31] Jeulin D. (1992) Modèles probabilistes pour la structure et le comportement mécanique des matériaux, *MECAMAT infos* (bulletin du Groupe Français de MéCANique et MATériaux), n°6, pp. 15-23.
- [32] Talbot H., Jeulin D., Hobbs L. (1992) Scanning electron microscopy image analysis of fiber glass insulation, *Proc. 50th Annual Meeting of the Electron Microscopy Society of America*, pp. 994-995, San Francisco Press.
- [33] Brémont R., Jeulin D., Dathy C., Abouaf M. (1992) Interactions métaux liquides-céramique microporeuse; application à la filtration. *Actes du Colloque Matériaux, Science et Industrie, Paris Juin 1992*, p. 211.
- [34] Jeulin Dominique (1992) Modélisation probabiliste de la microstructure et du comportement physique des matériaux, Conférence invitée, *Journées d'Automne de la SF2M, Mémoires et Etudes Scientifiques de la Revue de Métallurgie*, 89 N°9, p. 506.
- [35] Grillon F., Jeulin D. (1992) Modélisation probabiliste d'un sel polycristallin, *Mémoires et Etudes Scientifiques de la Revue de Métallurgie*, 89 N°9, p. 533.
- [36] Brémont R., Jeulin D., Dathy C., Abouaf M. (1992) Simulation par gaz sur réseau de la filtration de la fonte, *Mémoires et Etudes Scientifiques de la Revue de Métallurgie*, 89 N°9, p. 534.
- [37] Quenec'h J.L., Coster M., Chermant J.L., Jeulin D. (1992) Approche de cinétiques de frittage par les modèles probabilistes, *Mémoires et Etudes Scientifiques de la Revue de Métallurgie*, 89 N°9, p. 549.
- [38] Jeulin D., Petitgand H., Bush-Milosevic M.H., Senut Ch. (1992) Modélisation de la rugosité de cylindres de laminoir, *Mémoires et Etudes Scientifiques de la Revue de Métallurgie*, 89 N°9, p. 559.
- [39] Jeulin D. (1992) Image analysis and modelling of microstructure in materials science, Invited Lecture, *Proc. Second Saar-Lor-Lux Meeting on Advanced Materials and Nanocomposite Techniques*, Helmut Schmidt (ed), INM, Saarbrücken.
- [40] Jeulin D. (1992) Some Crack Propagation Models in Random Media, communication to the Symposium on the Macroscopic Behavior of the Heterogeneous Materials from the Microstructure, *ASME, Anaheim, Nov 8-13, 1992. AMD Vo. 147*, pp. 161-170.
- [41] Baxevanakis C., Boussuge M., Jeulin D., Munier E., Renard J. (1993) Simulation of the development of fracture in composite materials with random defects, *Proc. of the International Seminar on Micromechanics of Materials, MECAMAT'93, Fontainebleau, 6-8 July 1993*, pp. 460-471, Eyrolles, Paris.
- [42] Berdin C., Cailletaud G., Jeulin D. (1993), Micro-Macro Identification of Fracture Probabilistic Models, *Proc. of the International Seminar on Micromechanics of Materials, MECAMAT'93, Fontainebleau, 6-8 July 1993*, pp. 499-510, Eyrolles, Paris.

- [43] Baxevanakis C., Jeulin D., Renard J. (1993) Scalings in fracture of a unidirectional composite with a random distribution of defects, Proc. 6th European Conference on Composite Materials, Bordeaux 20-24 September 1993, pp. 447-455, Bunsell A.R., Kelly A., Massiah A. (ed), Woodhead Publishing Limited.
- [44] Jeulin D. (1993) Morphological Image Analysis and Modelling of Materials, Invited Lecture, Proc. DICTA'93 Conference (Digital Image Computing: techniques and applications), Sydney, Australia, 8-10 December 1993, K. K. Fung & A. Ginige (ed), pp. 35-38.
- [45] Jeulin D. (1994) Some aspects of Image analysis and modelling in Microscopy, Invited Lecture, Proc. 21st Annual Meeting of the Microscopical Society of Canada, Montréal, 12-15 Juin 1994, pp. 64-65.
- [46] Jeulin D. (1994), Microstructure Image Analysis and Modeling, Invited Lecture, Proc. ICEM13, Paris, 17-22 July 1994, pp. 437-440.
- [47] Girault S., Godart A., Valot E., Jeulin D., Boroditch L.A. (1994) Quantification of the 3D spatial distribution of ORGASOL Powder dispersed in a varnish as observed by confocal microscopy, Proc. ICEM13, Paris, 17-22 July 1994, pp. 541-542.
- [48] Jeulin D. (1994) Digital Image Processing Techniques, Invited Lecture, Proc. Micro 94 Conference, London, 12-15 September 1994, RMS Proceedings vol. 29, Part 4, pp. 213-214.
- [49] Baxevanakis C., Jeulin D. , Renard J. (1995) Critères probabilistes appliqués à la rupture des matériaux composites stratifiés, Actes du Colloque "Composites 95" (GAMI, AMAC, CETIM, ENSMP), Centre P. M. Fourn, Evry, 7-8 Février 1995, pp. 119-134. Published in: Mécanique Industrielle et Matériaux, vol. 48 N°2, Juin 1995, pp.84-87.
- [50] Jeulin D., Breysse D. (1995) Matériaux et Probabilités: un petit état de l'art, Actes des Journées Nationales de Fiabilité, Cachan, 30-31 Mars 1994, A. Mébarki, J. P. Muzeau, M. Lemaire (eds), pp. 257-276.
- [51] Jeulin D. (1995) Dead Leaves models: from tessellations to random functions, CT-01/95/MM; Modèles des Feuilles Mortes: des partitions aux fonctions aléatoires, CT-02/95/MM, Mars 1995, Paris School of Mines Publication.
- [52] Laurence P., Jeulin D. (1995) Modèles de structures aléatoires à grains primaires: Simulations à l'aide de Micromorph, C-05/95/MM, Mai 1995, Paris School of Mines Publication.
- [53] Jeulin D. (1995) Introduction to Fracture Statistical Models, CT-10/95/MM, Novembre 1995, Paris School of Mines Publication.
- [54] Jeulin D. (1996) Introduction aux modèles probabilistes de rupture des matériaux, Conférence invitée, Journée Scientifique et Technique 'Méthodes fiabilistes et conception en matériaux composites' organisée par l'AMAC, Clermont-Ferrand le 6 Décembre 1995, "Annales des Composites", 1996/1, pp. 23-42.

- [55] Laurence P., Jeulin D., Fournel B. (1996) Morphological description of the textured roll surface and simulation of the roughness transfer during rolling, in Proc. Conference ROLLS 2000, Birmingham, 28-29 March 1996, N-05/96/MM, Paris School of Mines Publication.
- [56] Jeulin D. (1996) Modeling heterogeneous materials by random structures, Invited lecture, European Workshop on Application of Statistics and Probabilities in Wood Mechanics, Bordeaux, 22-23 March 1996, N-06/96/MM, Paris School of Mines Publication.
- [57] Jeulin D. (1996) Introduction to Random Structures Models, Brazilian Workshop'96 on Mathematical Morphology, Sao Paulo, February 27th-March 1st 1996, CT2/96/MM, Paris School of Mines Publication.
- [58] Jeulin D., Squillaci E. (1996) Analyse morphologique de poudres sphériques, communication au Colloque sur le traitement des poudres et leurs conséquences, SF2M-Paris, 18-20 Mars 1996, pp. 17-1, 17-6; N-02/96/MM, Paris School of Mines Publication.
- [59] Jeulin D. (1996) Examples of 3D Morphological Image Analysis in Microscopy, Invited Lecture, Microscopy & Microanalysis'96, MSA-MAS-MS/SMC Annual Meeting, Minneapolis, August 11-15, 1996, San Francisco Press, pp. 590-591.
- [60] L'Espérance G., Dionne M., Demarty C.H., Jeulin D., Perrier E. (1996) Extracting 3-D information from SEM and TEM images: approaches and applications in the physical sciences, Microscopy & Microanalysis'96, MSA-MAS-MS/SMC Annual Meeting, Minneapolis, August 11-15, 1996, San Francisco Press, pp. 592-593.
- [61] Jeulin D. (1997) Processing data to achieve quantitative measures, Invited Lecture, Workshop on the Characterization of multiscale and stochastic materials microstructure and its relation to material aging, La Jolla (USA), 24-27 February 1997, Institute of Mechanics and Materials, Report N° 97-6, pp. 9-13.
- [62] Le Coënt A., Jeulin D., Strudel J.L. (1997) Carbon aggregate reconstruction from Transmission Electron Microscope images, Cell Vision, vol. 4 No.2, 219-221.
- [63] Demarty C.H., Jeulin D., L'Espérance G., Perrier, E. (1997) 3D morphological analysis of the connectivity of a sintered material, Cell Vision, vol. 4 No.2, 218-219.
- [64] Vieilleigne S., Jeulin D., Renard J., Sicot, N. (1997) Modelling of the fatigue behaviour of a unidirectional glass epoxy composite submitted to fatigue loadings, project of communication, International Conference on Fatigue of Composites, Paris (3-5 June 1997).
- [65] Pélissonnier-Grosjean C., Jeulin D., Pottier L., Fournier D., Thorel A. (1997) Mesoscopic modeling of the intergranular structure of  $Y_2O_3$  doped aluminium nitride and application to the prediction of the effective thermal conductivity, Key Engineering Materials, Volumes 132-136, Part 1, pp. 623-626, Transtech Publications, Switzerland.
- [66] Jeulin D. (1997) Change of scale in random media, Sommerschule des Graduiertenkollegs Räumliche Statistik, Freiberg, 10-13 Juni 1997, CT-04/97/MM, Paris School of Mines Publication.

- [67] Jeulin D. (1998) Introductory remarks to session C: structures and structural components, Workshop PROBAMAt 21st Century, Perm, Russia, 10-12 September 1997, G.N. Frantziskonis (ed), NATO ASI Series vol. 46, 579-583.
- [68] Jeulin D. (1998) Morphological modeling of surfaces, Invited Lecture, 11th International Conference on Surface Modification Technologies (SMT11), Paris, September 8-10, 1997, T.S. Sudarshan, M. Jeandin, K.A. Khor (eds), pp. 1-12.
- [69] Cochelin E., Borit F., Decker L., Jeulin D., Guipont V., Jeandin M. (1998) Application of lattice-gas models to plasma spraying, International Conference on Surface Modification Technologies (SMT11), Paris, September 8-10, 1997, T.S. Sudarshan, M. Jeandin, K.A. Khor (eds), pp. 21-30.
- [70] Tovenia I., Decker L., Jeulin D., Pocachard J., Ragot C. (1998) Simulation of water diffusion in packed metallic waste, project of communication to the Waste Management Symposium, Tucson (1-5 March 1998).
- [71] Cochelin E., Borit F., Frot G., Jeandin M., Decker L., Jeulin D., Al Taweel B., Michaud V., Noël P. (1998) Oxidation, thermo-mechanical and novel lattice-gas particle deposition modeling aspects in plasma spraying of Ti-6Al-4V/SiC fiber composites, Proceedings of the 15th International Thermal Spray Conference and Exhibition, Nice (25-29 May 1998), 1179-1186, Best paper of the Conference Award.
- [72] Jeulin D. (1998) Approche morphologique probabiliste de l'endommagement, Conférence invitée, Colloque National MECAMAT Aussois 1998, Mécanismes et Mécanique de l'Endommagement et de la Rupture (Aussois, 26-29 Janvier 1998), Proceedings, 1-5, and N-04/98/MM, Paris School of Mines Publication.
- [73] Jeulin D. (1998) Morphological and probabilistic approach of damage, Proc. First Israël-France Workshop on failure of Materials, Kyriat Anavim, Israël (11-12 May 1998), 72-77, and N-04/98/MM, Paris School of Mines Publication.
- [74] Jeulin D. (1998) Modèles probabilistes de microstructures, Invited lecture, Colloque National de Métallurgie des Poudres (SF2M), Grenoble, 6-8 Avril 1998, Proceedings, 319-328, and N-07/98/MM, Paris School of Mines Publication.
- [75] Fournier D., Pottier L., Pelissonnier-Grosjean C., Thorel A., Jeulin D. (1998) Thermal characterization of Aluminium Nitride Ceramics at various spatial scales by photo-thermal experiments, communication to the International Symposium on Aluminium Nitride Ceramics, Processing and Evaluation, March 8-11 1998, Tokyo.
- [76] Jeulin D. (1998) Caractérisation morphologique des structures aléatoires, MH2M98, La Londe les Maures, 23 Août - 4 Septembre 1998, pp.123-140, C-07/98/MM, Paris School of Mines Publication.
- [77] Jeulin D. (1998) Modèles de structures aléatoires, MH2M98, La Londe les Maures, 23 Août - 4 Septembre 1998, pp. 345-358, C-08/98/MM, Paris School of Mines Publication.
- [78] Jeulin D. (1998) Bornes et modèles d'ordre supérieur, MH2M98, La Londe les Maures, 23 Août - 4 Septembre 1998, pp. 359-373, C-09/98/MM, Paris School of Mines Publication.

- [79] Decker L., Jeulin D., Tovenia I. (1999) Transport properties of compacted waste, Proceeding session 8 (H11), ICEM'99 (7th international Conference on Radioactive Waste Management and Environmental Remediation - ASME 1999), Nagoya, Japan, Sept 26-30, 1999.
- [80] Jeulin D. (1999) Sequential random sets and function models (abstract), in Proceedings S4G, International Conference on Stereology, Spatial Statistics and Stochastic Geometry, Prague, June 21-24 1999 (Invited keynote), V. Benes, J. Janacek, and I. Saxl, eds. 1999: Union of Czech Mathematicians and Physicists. p. 4.
- [81] Aubert A., Jeulin D. (1999) L'optique géométrique comme outil de classification de surfaces rugueuses aléatoires. Problème direct et inverse, in SF $\mu$  1999. Ecole Polytechnique, Palaiseau, 28 Juin - 2 Juillet 1999.
- [82] Aubert A., Jeulin D., Krauth P.J. (1999) Propriétés optiques des surfaces rugueuses aléatoires, in Colloque Nouveaux Moyens Optiques pour l'Industrie II. Mittelwihl, 17-19 Novembre 1999: Club SFO "Contrôles et mesures optiques pour l'industrie".
- [83] Aubert A., Jeulin D., Krauth P.J. (1999) Classification de surfaces métalliques rugueuses aléatoires à partir de leurs propriétés optiques, in SF2M, Journées d'Automne 99. Paris, 2-5 Novembre 1999.
- [84] Jeulin D. (1999) Trends in Mathematical Morphology For Materials Image Analysis and Simulations (abstract), in Proceedings Xth International Congress for Stereology, Melbourne, Australia, 1-4 November 1999 (Invited keynote).
- [85] Jeulin D. (1999) Morphological measurements for random structures - Mathematical Morphology Course, Melbourne, Australia, 30 October 1999, 50 p.
- [86] Jeulin D. (1999) Probabilistic models of structures : Introduction to random sets - Mathematical Morphology Course, Melbourne, Australia, 30 October 1999, 31 p.
- [87] Aubert A., Jeulin D., Hashimoto R. (2000) Surface texture classification from morphological transformations, Proc. ISMM'2000, Palo Alto, USA (16-28 June 2000), in Mathematical morphology and its applications to Image and Signal Processing, J. Goutsias, L. Vincent and D.S. Bloomberg (eds), Kluwer Academic Publishers, pp. 253-252.
- [88] Jeulin D. (2000) Morphological random models and simulations of images, Invited lecture, 16th IMACS WORLD CONGRESS 2000, on Scientific Computation, Applied Mathematics and Simulation, Lausanne, Switzerland August 21-25, 2000, N-03/00/MM, Paris School of Mines Publication.
- [89] Jeulin D., Ostoja-Starzewski M. (2000) Shear bands in elasto-plastic response of random composites by geodesics, Project of communication to PMC 2000 (Probabilistic Mechanics Conference 2000, University of Notre Dame, Indiana, USA, July 24-26, 2000), N-08/00/MM, Paris School of Mines Publication.
- [90] Jeulin D. (2000) Models of random structures, Lecture Notes, CT-/02/MM, Paris School of Mines Publication.

- [91] Decker L., Savary L., Jeulin D. (2000) Models of random structures with primary grains, Simulations with Micromorph, C-/03/MM, Paris School of Mines Publication.
- [92] Altus E., Jeulin D. (2000) Fractal dimension of damage growth by a statistical micro-mechanic fatigue model, in Proc.Euromat 2000 Conference, Tours, France, D. Miannay, P. Costa, D. François, A. Pineau (eds), 759-764.
- [93] Jeulin D. (2000) Models of random damage, in Proc.Euromat 2000 Conference, Tours, France, D. Miannay, P. Costa, D. François, A. Pineau (eds), 771-776.
- [94] Castéra P., Jeulin D., Bos F., Michaud F., Delisée Ch. (2000) On the role of microstructural morphology on the macroscopic properties of cellulosic fibrous materials, Proceedings of the International Conference on Wood and Wood Fiber Composites, Stuttgart, Germany, 13-15 April 2000, pp 481-492.
- [95] Michaud F., Jeulin D., Delisée Ch., Bos F. (2000) Analyse Morphologique et Porosité de Matériaux Fibreux Cellulosiques, Compte rendus des 12èmes Journées Nationales des Composites, Cachan, novembre 2000, pp 449-458.
- [96] Jeulin D. (2000) Morphological image analysis and simulation of random structures, Keynote lecture, Proc. of the 6th Annual Conference of the Advanced School for Computing and Imaging, ASCI 2000, Lommel, Belgium, June 14-16, 2000, L.J. van Vliet, J.W.J. Heijnsdijk, T. Kielmann, P.M.W. Knijnenburg (eds), p. 3.
- [97] Bornert M., Jeulin D., Maire E., Moulinec H., Chaix J.M.(2000) Caractérisation morphologique 3D des matériaux de structure hétérogène par microtomographie X et traitement d'image pour la prévision du comportement mécanique, in Actes des Journées du Programme Matériaux du CNRS, Colloque d'étape, ICMCB-ENSCP, Université de Bordeaux (13-15 décembre 2000), 126-130.
- [98] Castéra P., Josseleau J.P., Jeulin D., Rueff M., Perré P., Huchon R. (2000) Architecture et propriétés multi-échelles de matériaux fibreux cellulosiques modélisés par des milieux aléatoires, in Actes des Journées du Programme Matériaux du CNRS, Colloque d'étape, ICMCB-ENSCP, Université de Bordeaux (13-15 décembre 2000), 141-145.
- [99] Jeulin D. (2001) Modèles morphologiques pour la physique des milieux aléatoires, Invited lecture, Proc. Colloque VIM2001 (Visualisation, Image, Modélisation), Nancy, 15-17 Mai 2001, pp. 389-397.
- [100] Bruner Y., Renard J., Jeulin D., Thionnet A. (2001) Coupling of damage mechanics and probabilistic approach for life-time prediction of composite materials structures, Communication to the International Conference on Fracture ICF10, Hawai, Dec 2001. N-21/01/MM, Paris School of Mines Publication.
- [101] Cullen-McEwen L.A., Fricout G., Harper I.S., Jeulin D., Bertram J.F. (2001) Quantitation of 3D ureteric branching and growth: development of a technique and in vitro estimates, in Proc. 8th International Workshop on Developmental Nephrology, Victoria, British Columbia, August 29-31 2001.

- [102] Delisée Ch., Jeulin D., Michaud F., Bos F. (2001) Models of random networks for simulate cellulosic fibrous materials, communication to the 8th European Congress for Stereology, Bordeaux, 4-7 September 2001, N-27/01/MM, Paris School of Mines Publication.
- [103] Jeulin D. (2001) Random Structure Models for Homogenization and Fracture Statistics, in *Mechanics of Random and Multiscale Microstructures*, ed. by D. Jeulin and M. Ostoja-Starzewski (CISM Lecture Notes N° 430, Springer Verlag), pp. 33-91.
- [104] Jeulin D. (2001) 3D morphological analysis of microstructures, invited lecture, Journées d'Automne 2001 de la SF2M, Paris (29-31 Octobre 2001), *Revue de Métallurgie*, p. 83.
- [105] Jeulin D. (2002) Approche probabiliste du comportement élastique de composites, Invited Lecture, Proc. Colloque MECAMAT, Mécanique des Matériaux, Aussois, 22-25 Janvier 2002, D. Favier, S. Gustave, L. Orgéas (eds), pp. 161-168. N-01/02/MM, Paris School of Mines Publication.
- [106] Jeulin D., Delarue A. (2002) Numerical Homogenization of Dielectric Properties of Random Media. Application to Nanocomposites, In: *Journée doctorale 2002 Saint-Etienne* (20 Novembre 2002), Signaux et milieux complexes, ISBN 2-86272-281-2, Th. Fournel et G. Brun (eds), Presses de l'Université Jean Monnet, pp. 77-87.
- [107] Fricout G., Jeulin D. (2003) Texture classification from their morphological properties, *Proceedings of the 9th International Conference on Metrology and Properties of Engineering Surfaces*, Sept. 10-11 2003, Halmstad University, Sweden.
- [108] Fricout G., Jeulin D. (2003) Propriétés morphologiques et classification de surfaces rugueuses, *Actes du 4è colloque francophone "Méthodes et Techniques optiques pour l'Industrie"*, Belfort, 17-21 Novembre 2003, pp. 124-130.
- [109] Jeulin D. (2003) Models of random microstructures, Invited lecture, *Proceedings of XIth International Congress for Stereology Beijing Conference* (4-8 November 2003), Guquan Liu & Dewen Wang (eds), p. 4.
- [110] Jeulin D., Moreaud M., Fournel Th. (2004) Recherche des champs de déformations 3D de matériaux observés par microtomographie à rayons X, *Proceedings du colloque PHOTOMÉCANIQUE 2004* (4-6 mai 2004, Albi, France), pp. 25-32, edited by Ecole des Mines d'Albi-Carmaux.
- [111] Beauvais S., Guipont V., N'Guyen F., Jeandin M., Jeulin D., Robisson A., Saenger R. (2004) Study of the porosity in plasma-sprayed alumina through an innovative 3-dimensional simulation of the coating build-up, in *Proceedings of ITSC 2004 (International Thermal Spray Conference)*, Osaka, Japan, 10-12 May 2004.
- [112] Fricout G., Jeulin D. (2004) On line characterization of painted surfaces aspect by morphological and image processing tools, *Proceedings of the 37th Autumn Congress of the European Coil Coating Association (ECCA)*, Brussels, 16-18 November 2003, B.G. Rosen & T.R. Thomas (eds), Halmstad University, pp. 42-55.

- [113] Denis L., Fournier C., Fournel T., Ducottet C., Sénéschal J., Jeulin D. (2004) Estimation de tailles de particules directement à partir d'un microhologramme numérique, communication au colloque SFO-CMOI (St-Etienne, 15-19 novembre 2004).
- [114] Jeulin D. (2005) Morphological Modeling and Simulation of Random Microstructures for Physical Applications, Invited lecture, Microscopy And Microanalysis 2005, Honolulu (Hawaï), July 31 to August 4, 2005.
- [115] Madi K., N'Guyen F., Forest S., Boussuge M., Lataste E., Buffière J.Y., Jeulin D. (2005) Etude de la morphologie tridimensionnelle de réfractaires électrofondus, communication au 17<sup>e</sup> Congrès Français de Mécanique, Troyes, France, 29 Août-2 Septembre 2005.
- [116] Jeulin D. Models of random structures: the link between geometry and physical behavior. Invited lecture in "AppliedMath" 1er Taller Internacional de Matemáticas Aplicadas. IPN México, 22-24 September 2005, pp.203-222.
- [117] Parra-Denis E., Barat C., Ducottet Ch., Jeulin D. (2005) 3D morphological analysis of particles in aluminium alloys by X-ray microtomography. In Proc. EUROMAT, Prague, 5-8 september 2005.
- [118] Jeulin D. (2005) Morphological Models and Simulations to predict the Physical behavior of Random Microstructures, Invited lecture, Conference "Stochastic Geometry and its Applications" (Bern, 3-7 October 2005).
- [119] Denis L., Fournier C., Fournel T., Jeulin D. Etude de l'orientation de fibres de papier par holographie numérique. Communication au 6<sup>e</sup> colloque CMOI-SFO, Méthodes et Techniques Optiques pour l'Industrie, Marseille 21-25 novembre 2005.
- [120] Denis L., Fournier C., Fournel T., Ducottet C., Jeulin D. Estimation directe du diamètre moyen de micro-particules dans un volume à partir d'un hologramme numérique. in Colloque FLUVISU11. ECL, Ecully, France, 7-9 juin 2005.
- [121] Jeulin D. (2005) Approche statistique du VER, Invited lecture, 17<sup>e</sup> Congrès Français de Mécanique, Troyes, France, 29 Août-2 Septembre 2005.
- [122] Moulin N., Klöcker H., Jeulin D. The introduction of physically representative volumes for FE-analysis of stresses around and inside intermetallic particles in aluminium alloy. in AMPPT, Las Vegas, Jul 30-Aug 3, 2006.
- [123] Parra-Denis E., Barat C., Ducottet Ch., Jeulin D. (2006) Caractérisation de la forme complexe de particules intermétalliques dans les alliages d'aluminium par analyse statistique. in Matériaux 2006. Dijon, 13-17 nov 2006.
- [124] Madi K., Forest S., Boussuge M., Gailliègue S., Lataste E., Buffière J.Y., Bernard D., Jeulin D. (2006) Influence de la morphologie tridimensionnelle sur le comportement mécanique de réfractaires électrofondus. in Matériaux 2006, Dijon, 13-17 nov 2006.
- [125] Jeulin D., Moreaud M. (2006) Volume élémentaire représentatif pour la permittivité diélectrique de milieux aléatoires. in Matériaux 2006, Dijon, 13-17 nov 2006.

- [126] Parra-Denis E., Jeulin D. (2006) Modélisation morphologique 3D des particules intermétalliques dans les alliages d'aluminium. in *Matériaux 2006*, Dijon, 13-17 nov 2006.
- [127] Madi K., Forest S., Jeulin D., Boussuge M. (2006) Estimating RVE sizes for 2D/3D viscoplastic composite materials. in *Matériaux 2006*. Dijon, 13-17 nov 2006.
- [128] Jeulin D., Moreaud M. (2006) Percolation d'agrégats multi-échelles de sphères et de fibres : Application aux nanocomposites. in *Matériaux 2006*. Dijon, 13-17 nov 2006.
- [129] Moulin N., Klöcker H., Jeulin D. (2006) Recherche d'un volume physique représentatif à partir d'une analyse EF basée sur les champs de contraintes dans des particules intermétalliques. in *Matériaux 2006*, Dijon, 13-17 nov 2006.
- [130] Jeulin D. (2006) Estimation of the size and spatial distribution of particles from thick sections. in *S4G, 6th Int. Conf. Stereology, Spatial Statistics and Stochastic Geometry*. Prague, 26-29 June 2006. p. 275-279.
- [131] Jeulin D., Moreaud M. (2006) Percolation of multi-scale fiber aggregates. in *S4G, 6th Int. Conf. Stereology, Spatial Statistics and Stochastic Geometry*. Prague, 26-29 June 2006. p. 269-274.
- [132] Jeulin D., Moreaud M. (2006) Statistical representative volume element for predicting the dielectric permittivity of random media. in *PIERS 2006*. Tokyo, 2-5 août 2006.
- [133] Jeulin D., Moreaud M. (2006) From Nano to Macro: a multiscale morphological approach of the dielectric permittivity of carbon-black nanocomposites. Invited Keynote Lecture to 10th Japanese-European Symposium on Composite Materials "Interactive Solution on Nano/Macroscopic Level and Hybrid Technology for Practical Applications. Nagano, Japan, Sept 26-28, 2006. p. 1-5.
- [134] Noyel G., Angulo J., Jeulin D. (2006) Morphological segmentation of hyperspectral images. Submitted to *Image Analysis and Stereology, ICS XII*, Saint-Etienne Aug. 30-Sept. 7, 2007. Décembre 2006.

### 3. BOOKS

#### REFERENCES

- [1] Jeulin D. *Morphologie Mathématique et Propriétés Physiques des agglomérés de minerais de fer et du coke métallurgique*, Thèse de Docteur-Ingénieur en Sciences et Techniques Minières, Option Géostatistique, Ecole des Mines de Paris, 23 Novembre 1979 (298p.).
- [2] Jeulin D. *Modèles Morphologiques de Structures Aléatoires et de Changement d'Echelle*. Thèse de Doctorat d'Etat ès Sciences Physiques, Université de Caen, 25 Avril 1991.
- [3] Jeulin D. (ed) (1994) *Course on Models and Simulations of Random Structures* (Sept. 5-6, 1994, Fontainebleau), Lecture Notes (vol. 1-2), edited by Paris School of Mines.

- [4] Jeulin D., Besson J., Pineau A. (eds) (1995) Workshop "Mechanical Behaviour of Damaged Solids (Nov. 20-22 1995, Fontainebleau), Lecture Notes (vol. 1-2-3), edited by Paris School of Mines and MECAMAT.
- [5] Jeulin D. (ed) (1997) Proceedings of the Symposium on the Advances in the Theory and Applications of Random Sets (Fontainebleau, 9-11 October 1996), World Scientific Publishing Company.
- [6] Jeulin D. (guest editor) (1997) Journal of Electronic Imaging, special issue on Random models in imaging, January 1997.
- [7] Chermant J.L., Jeulin D. (editors) (1997) Acta Stereologica: Special Issue on Mathematical Morphology, Vol. 16, n° 3, 153-322.
- [8] Jeulin D., Renard J. (eds) (1998) Aspects probabilistes du comportement mécanique des matériaux composites, Revue des Composites et des matériaux avancés, Volume 8, numéro hors série.
- [9] Jeulin D. (guest editor) Jeulin D. (2000) Revue de Métallurgie (Feb. 2000), numéro spécial consacré à l'Analyse d'images et à la reconnaissance de formes en matériaux.
- [10] Jeulin D. (2001) Caractérisation morphologique et modèles de structures aléatoires, in "Homogénéisation en mécanique des matériaux" (M. Bornert, T. Bretheau & P. Gilormini, eds), tome 1 "Matériaux aléatoires élastiques et milieux périodiques", chapitre 4, pp. 95-132, Hermes, Paris.
- [11] Bouchaud E., Jeulin D., Prioul C., Roux S. (eds) (2001) Physical aspects of fracture, Proc. NATO/ASI Conference, Cargèse, Corsica (5-17 June 2000), Kluwer Academic Publishers, September 2001.
- [12] Jeulin D., Ostoja-Starzewski, M. (eds) (2001) Mechanics of Random and Multiscale Microstructures, CISM Lecture Notes N° 430, Springer Verlag.
- [13] Jeulin, D. Morphological models of random structures, in preparation.