

ACTA STEREOLOGICA

CONTENTS	Page
Preface, I. Krekule, I. Saxl	VIII
<i>RANDOM SET THEORY AND INTEGRAL GEOMETRY FOR STEREOLOGY</i>	
<i>General</i>	
The determination of shape and mean shape from sections and projections, W. Weil	73
Measuring membrane thickness, R. Coleman	85
A different approach of distances in the set of planar bodies, I. Fillère, M.J. Labouré, M. Jourlin, J.M. Becker	89
Generalized Fourier descriptors for shape analysis of 3-dimensional closed curves, T. Réti, I. Czinege	95
Asymmetry definition of a convex body by means of characteristic points, M.J. Labouré, I. Fillère, J.M. Becker, M. Jourlin	103
Reversed stereology and its application to interaction between second phase and grain boundary, G. Liu	109
Spherical contact distances in Neyman-Scott process of regular clusters, I. Saxl	115
<i>Tessellations</i>	
Distributional properties of the Poisson-Voronoi tessellation, L. Muche	125
Stereological model tests for the spatial Poisson-Voronoi tessellation II, U. Hahn, U. Lorz	131
A 2-D model for the growth of arteries, K. Sandau, H. Kurz	141
Characterization of topological properties of 2D cellular structures by image analysis, V. Pignol, R. Delannay, G. Le Caër	149
Properties of the Voronoi tessellation corresponding to the generalized planar Gauss-Poisson process, I. Kohútek, I. Saxl	155

STATISTICS FOR STEREOLOGY

Revisiting the turning bands methods, X. Freulon, C. Lantuejoul	163
The effect of improper realignment of serial sections on surface area measurements of 3D-reconstructed objects, U. Hahn	169
Second order stereology for anisotropic Boolean segment processes with application, J. Chadoeuf, V. Beneš, P. Monestiez, A. Kretzschmar	175
On estimation of the shape of an isotropic grain in the Boolean model, I.S. Molchanov	181
On anisotropic sampling in stereology, V. Beneš	185
Some connectivity characteristics of a Boolean model, D. Allard	191
Size effects on local topological measurements, P. Jouannot, J.P. Jernot	197
Second-order stereology of prostatic adenocarcinoma and normal prostatic tissue, T. Mattfeldt, U. Vogel, H.W. Gottfried, H. Frey	203

STEREOLOGY IN GEOSCIENCES

General

Stereology in geosciences: Achievements, difficulties and limitations, J. Bodziony	211
Size and shape of space filling blocks in a quarry, J. Riss, S. Gentier	223
Identification of trans- and intercrystalline image of the fracture surfaces of rock specimens, J. Bodziony, M. Młynarczuk, T. Ratajczak	229

Soil research

Modelling natural burrow systems in soil by fibre process: Monte-Carlo test on independence of fibre characteristics, P. Monestiez, A. Kretzschmar, J. Chadoeuf	237
Evaluation of the pore structure of soil specimens, J. Bodziony, K. Konstankiewicz, M. Młynarczuk, T. Ratajczak	243
What kind of information can be extracted from manually segmented two-dimensional sections of soil macrostructure? D. Werner, F. Doležal	249
Model of spatial organization of vegetation in river floodplains, E. Chiarello, J.M. Jolion, C. Amoros	255

Form analysis software by image processing: Applications to clay particles and soil structure, G. Touchard, A. Badri, B. Velde, L. Caillon, J. Borzeix 263

STEREOLOGY IN BIOSCIENCES

Neuromorphology, 3-D probes

Total number of neurons in specific cortical layers in the human brain, B. Pakkenberg, H.J.G. Gundersen 271

Grey level image analysis using a topological tree of connected figures selected in a set of serial binary sections, E.G. Markova, I.A. Markov, D. van Velzen, V.C. Howard 277

Number and size distribution of cerebellar neurons estimated by the optical fractionator and the vertical rotator, J.O. Larsen, T. Tandrup, H. Brændgaard 283

Morphometric investigations of the glial cell nests in the rhinencephalic allocortex of the dog, G. Obermaier, A. Reihlen, E. Dahme, S. Weis 289

Purkinje cell number and size, comparison of human and rat cerebella, B.B. Andersen, L. Korbo 295

Macroscopic morphometry of the human brain in neurodegeneration, S. Weis, I.C. Llenos, A. Büttner, A. Rebhan, D. Soreth, P. Mehraein 299

Stereological analysis of the inferior olivary nucleus in the developing human brain, R. Gudović 305

Stereological quantitation of brains from demented and nondemented old females, L. Regeur 311

No neocortical nerve cell loss in brains from chronic alcoholics, G.B. Jensen, B. Pakkenberg 317

FORTHCOMING MEETINGS XV

PERSONAL NEWS XVI

AUTHOR INDEX XVII

SUBJECT INDEX XVIII

INSTRUCTIONS TO AUTHORS

