

MARIUS GEORGE LINGURARU - List of Publications

BOOKS

Linguraru, M.G. Moisil I.: Știința Sistemelor și a Calculatoarelor [*The Science of Systems and Computers*], ConSoft, Sibiu (2001)

JOURNAL PUBLICATIONS

Linguraru, M.G. Ayache, N. Bardinet, E. Gonzalez Ballester, M.A. Galanaud, D. Haïk, S. Faucheux, B. Hauw, J.J. Cozzone, P. Dormont, D. Brandel, J.P.: Differentiation of sCJD and vCJD Forms by Automated Analysis of Basal Ganglia Intensity Distribution in Multisequence MRI of the Brain – Definition and Evaluation of new MRI-based Ratios. In: IEEE Transactions on Medical Imaging Vol. 25(8) (2006), in press

Linguraru, M.G. Marias, K. English, R. Brady, J.M.: A Biologically Inspired Algorithm for Microcalcification Cluster Detection. In: Medical Image Analysis, Elsevier (2006), accepted for publication

Linguraru, M.G. Gonzalez Ballester, M.A. Ayache, N.: Deformable Atlases for the Segmentation of Internal Brain Nuclei in Magnetic Resonance Imaging. In: Acta Universitatis Cibiniensis, Technical Series, (2006), accepted for publication

Linguraru, M.G. Vasilyev, N. Del Nido, P.J. Howe, R.D.: Statistical Segmentation of Surgical Instruments in 3D Ultrasound Images. In: Ultrasound in Medicine and Biology (submitted in 2006)

Galanaud, D. Haïk, S. **Linguraru, M.G.** Ranjeva, J.P. Bardinet, E. Faucheux, B. Kaphan, E. Hauw, J.J. Ayache, N. Chiras, J. Cozzone, P. Dormont, D. Brandel, J.P.: Multimodal Magnetic Resonance Imaging and Spectroscopy in Prion Diseases. In: Annals of Neurology (submitted in 2006)

Haïk, S. Galanaud, D. **Linguraru, M.G.** Peoc'h, K. Privat, N. Faucheux, B. Chabas, D. Ayache, N. Hauw, J.J. Dormont, D. Brandel, J.P.: Diagnosis of human TSE by Multimodality MRI: Spectroscopic Detection of Thalamic Gliosis in a Patient with FFI and Normal MRI. In: Annals of Neurology (submitted in 2006)

Linguraru, M.G. Ayache, N.: Definition and Evaluation of MRI-Based Measures for the Neuroradiological Investigation of Creutzfeldt-Jakob Diseases. In: ERCIM News, Special Issue on Biomedical Informatics, No. 60 (2005) 52-53

Galanaud, D. Dormont, D. Brandel, J.P. **Linguraru, M.G.**, Bardinet, E. Chiras J.: Exploration des Maladies à Prions par IRM Multimodale [*Investigation of Prions Diseases by Multisequence MRI*]. In : Journal of Neuroradiology, Special Issue Journées de Neuroradiologie de Langue Française 2005, Masson , Vol. 32(2) (2005) 79 (abstract)

Linguraru, M.G. Galanaud, D. Dormont, D. Faucheux, B. Haïk, S. Hauw, J.J. Chiras, J. Bardinet, E. Gonzalez Ballester, M.A. Cozzone, P. Ayache, N. Brandel, J.P.: Détection et Quantification Automatique des Hypersignaux en IRM dans la Maladie de Creutzfeldt-Jakob [*Automatic Detection and Quantification of MRI Hypersignals for the Creutzfeldt-Jakob Disease*]. In : Journal de Radiologie, Edition Française de Radiologie, Vol. 85(9) (2004) 1394 (abstract)

Gonzalez Ballester, M.A. Pennec, X. **Linguraru, M.G.** Ayache, N.: Generalized Image Models and their Application as Statistical Models of Images. In: Medical Image Analysis, Elsevier, Vol. 8(3) (2004) 361-369

Linguraru, M.G. Brady, J.M.: An Anisotropic Diffusion Approach for Early Detection of Breast Cancer. In: Acta Universitatis Cibiniensis, Technical Series, Vol. XLIII (2001) 49-60

ARTICLES IN PREPARATION

Linguraru, M.G. Novotny, P.M. Vasilyev, N. Marx, G.M. Del Nido, P.J. Howe, R.D.: Block Flow Tracking of Atrial Septal Defects in 4D Ultrasound of the Heart. To submit to IEEE Transactions on Medical Imaging (2006)

Gonzalez Ballester, M.A. **Linguraru, M.G.** Reyes Aguirre, M. Marias, K. Nolte, L.P. Ayache, N.: Statistical Shape Modelling via Principal Factor Analysis. To submit to Pattern Recognition (2006)

Marias, K. **Linguraru, M.G.** Gonzalez Ballester, M.A. Petroudi, S. Brady, J.M.: Computer-assisted Characterisation of Mammographic Tissue Patterns. To submit to IEEE Transactions on Information Technology in Biomedicine (2006)

LECTURE NOTES IN COMPUTER SCIENCE SERIES

Linguraru, M.G. Vasilyev, N. Del Nido, P.J. Howe, R.D.: Atrial Septal Defect Tracking in 3D Cardiac Ultrasound. In: Medical Image Computing and Computer-Assisted Intervention – MICCAI 2006, Lecture Notes in Computer Science, Springer New York, accepted for publication

Linguraru, M.G. Ayache, N. Gonzalez Ballester, M.A. Bardinnet, E. Galanaud, D. Haïk, S. Faucheux, B. Cozzone, P. Dormont, D. Brandel, J.P.: New Ratios for the Detection and Classification of CJD in Multisequence MRI of the Brain. In: Duncan, J. Gerig, G. (eds.): Medical Image Computing and Computer-Assisted Intervention – MICCAI 2005, Lecture Notes in Computer Science, Vol. 3750, Springer New York (2005) 492-499

Linguraru, M.G. Brady, J.M. English, R.: Foveal Algorithm for the Detection of Microcalcification Clusters: a FROC Analysis. In Barillot, C. Haynor, D.R. Hellier, P. (eds.): Medical Image Computing and Computer-Assisted Intervention – MICCAI 2004, Lecture Notes in Computer Science, Vol. 3217, Springer New York (2004) 813-820

Linguraru, M.G. Gonzalez Ballester, M.A., Ayache, N.: A Multiscale Feature Detector for Morphological Analysis of the Brain. In Ellis, R.E. Peters, T.M. (eds.): Medical Image Computing and Computer-Assisted Intervention – MICCAI 2003, Lecture Notes in Computer Science, Vol. 2879, Springer New York (2003) 738-745

Linguraru, M.G. Brady, J.M. Yam, M.: Filtering h_{int} Images for the Detection of Microcalcifications. In Niessen, W. Viergever, M. (eds.): Medical Image Computing and Computer-Assisted Intervention – MICCAI 2001, Lecture Notes in Computer Science, Vol. 2208, Springer New York (2001) 629-636

CONFERENCE PUBLICATIONS

Linguraru, M.G. Howe, R.D.: Texture-based Segmentation of Instruments in 3D Ultrasound. In: Reinhardt, J.M. Pluim, J.P.W. (eds.): Proceedings of SPIE Medical Imaging 2006: Image Processing, Vol. 6144, Part 2 (2006) 61443J1-9

Linguraru, M.G. Novotny, P.M. Howe, R.D.: Enhancement of Instrument Appearance in Ultrasound Images by Distribution and Spatial Analysis. Presented at Medical Image Computing and Computer-Assisted Intervention – MICCAI 2005, Palm Springs USA, October 2005 (extended abstract)

Marias, K. **Linguraru, M.G.**, Gonzalez Ballester, M.A. Petroudi, S. Tsiknakis, M. Brady, J.M.: Automatic Labelling and BI-RADS Characterisation of Mammogram Densities. In: Proceedings of 27th IEEE Engineering in Medicine and Biology Society (EMBS) Annual International Conference (2005) 6394-6398

Gonzalez Ballester, M.A **Linguraru, M.G.** Reyes Aguirre M. Ayache, N.: On the Adequacy of Principal Factor Analysis for the Study of Shape Variability. In: Fitzpatrick, J.M. and Reinhardt, J.M. (eds.), Proceedings of SPIE Medical Imaging 2005: Image Processing, Vol. 5747 (2005) 1392-1399

Novotny, P.M. **Linguraru, M.G.** Marx, G., Del Nido, P. Howe, R.D.: Using Real-Time Three-Dimensional Ultrasound to Characterize Mitral Valve Motion. In Proceedings of Biomedical Engineering Society – BMES (2005), 1302 (abstract)

Haïk, S. Galanaud, D. Faucheux, B.A. Privat, N. Laffont-Proust, I. **Linguraru, M.G.** Ayache, N. Hauw, J.J. Dormont, D. Brandel, J.P.: Early Diagnosis of Human TSE by Multimodality MRI: Spectrometric Detection of Thalamic Gliosis in a Patient with FFI and Normal FLAIR and Diffusion-Weighted Imaging. In: Proceedings of Prions 2005: Between Fundamentals and Society's Needs, (2005) 176 (abstract)

Haïk, S. Galanaud, D. Faucheux, B.A. Privat, N. **Linguraru, M.G.** Ayache, N. Hauw, J.J. Dormont, D. Brandel, J.P.: Early Diagnosis of Human TSE by Multimodality MRI: Spectrometric Detection of Thalamic Gliosis in a Patient with FFI and Normal FLAIR and Diffusion-Weighted Imaging. In: Proceedings of II International Symposium on The New Prion Biology: Basic Science, Diagnosis and Therapy, Venice (2005) (abstract)

Linguraru, M.G. Ayache, N. Bardinnet, E. González Ballester, M.A. Galanaud, D. Haïk, S. Faucheux, B. Hauw, J.J. Chiras, J. Cozzone, P. Dormont, D. Brandel J.P.: Détection et Quantification Automatique des Hypersignaux en IRM dans la Maladie de Creutzfeldt-Jakob [*Automatic Detection and Quantification of MRI Hypersignals for the Creutzfeldt-Jakob Disease*]. In Congrès du G.I.S. Infections à Prions, (2004) 25 (abstract)

Galanaud, D. **Linguraru, M.G.** Haïk, S. Dormont, D. Bardinnet, E. Fauchaux, B. Cozzone, P. Ayache, N. Brandel J.P.: Intérêt de l'IRM Multimodale dans le Diagnostic des Maladies à Prions [*The Role of Multisequence MRI in the Diagnosis of Prions Diseases*]. In Congrès du G.I.S. Infections à Prions, (2004) 26 (abstract)

Linguraru, M.G. Brady, J.M. Yam, M.: Detection of Microcalcifications using SMF. In Peitgen, H.O. (ed.): Digital Mammography, Springer Berlin (2002) 342-346

Linguraru, M.G. Marias, K. Brady, J.M.: Temporal Mass Detection. In Peitgen, H.O. (ed.): Digital Mammography, Springer Berlin (2002) 347-349

Linguraru, M.G. Brady, J.M.: A Non-Parametric Approach to Detecting Microcalcifications. In Peitgen, H.O. (ed.): Digital Mammography, Springer Berlin (2002) 339-341

Linguraru, M.G. Brady, J.M. Kadir, T. Yam, M.: A Novel Method to Detect Microcalcifications for Early Signs of Breast Cancer. In Patel, V.L. Rogers, R. Haux, R. (eds.): Tenth World Congress on Health and Medical Informatics – Medinfo2001, IOS Press Amsterdam (2001) 946 (abstract)

Linguraru, M.G. Zamfirescu, C.B.: The Cultural Impact of Anthropocentric Systems in Medical Decision Making. In: Proceedings of IEEE International Conference on Intelligent Engineering Systems, Stará Lesná (1999) 473-477

Linguraru, M.G. Moisiu, I.: Graphic Tools under XWindow for Image Segmentation In: Proceedings of International Conference on Engineering Research Strategies (BEYOND 2000), Acta Universitatis Cibiniensis, Special Issue, Vol. XXXVIII, Sibiu, (1999) 65-72

Linguraru, M.G. Zamfirescu, C.B.: Medical Decision Systems: A Human-Centred Approach. In: Proceedings of 22nd Romanian Conference on Medical Informatics with International Participation - MEDINF'99, Sibiu (1999)

Giurgiu, P. **Linguraru, M.G.:** Applying Computer Telephony in Healthcare: Medical Call Centres. In: Proceedings of 22nd Romanian Conference on Medical Informatics with International Participation - MEDINF'99, Sibiu (1999)

Samoila, A. Moisiu, I. **Linguraru, M.G.:** An Educational Web Site for Medicine. In: Proceedings of 22nd Romanian Conference on Medical Informatics with International Participation - MEDINF'99, Sibiu (1999)

PATENTS

Linguraru, M.G. Brady, J.M.: Improvements in or Related to Image Processing. GB0222066.3 (UK), EP03760809 (European), WO2004001670 (World)

THESES and REPORTS

Linguraru, M.G. Gonzalez Ballester, M.A. Bardinnet, E. Galanaud, D. Haïk, S. Fauchaux, B. Hauw, J.J. Cozzone, P. Dormont, D. Brandel, J.P. Ayache, N.: Automated Analysis of Basal Ganglia Intensity Distribution in Multi-sequence MRI of the Brain – Application to Creutzfeldt-Jakob Disease. Rapport de Recherche RR-5276, INRIA (2004)

Linguraru, M.G.: Feature Detection in Mammographic Image Analysis. PhD Thesis, University of Oxford (2002)

Linguraru, M.G.: Filtering *hint* Images for Microcalcification Detection: An Anisotropic Diffusion Approach. PhD Transfer Dissertation, University of Oxford (2000)

Linguraru, M.G.: *Nation within Nation: The Cases of Identities in the British Isles*. MA Thesis, 'Lucian Blaga' University of Sibiu (1998)

Linguraru, M.G.: Medical Applications of Computers and Image Segmentation. MSc Thesis, 'Lucian Blaga' University of Sibiu (1997)

Linguraru, M.G.: Graphic Tools under XWindow for Image Segmentation. BSc Dissertation, University of Coventry (1996)