Luc W. Biard

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education

Diplome d'Etude Approfondie de Mathématiques, Paul Sabatier University, Toulouse, 1986

PhD thesis in Computer Sciences, Joseph Fourier University, November 1990

Diplome d'Habilitation à Diriger des Recherches, Joseph Fourier University, November 2009

experience - recent activities

Associate Professor, Laboratoire Jean Kuntzmann, Grenoble,
University Joseph Fourier, Grenoble, 1991

Leader of the team of "Modélisation Géométrique et Approximation", Lab. LMC-IMAG, University Joseph Fourier, Grenoble, 1998–2006

In charge of the Master M2P IICAO : "Ingénierie de l'Image et de la CAO", University Joseph Fourier, Grenoble, 1998–2006

Visiting professor at the Department of Mechanical and Aeronautical Engineering, University of California, Davis, 2007–2008

In charge of the Master M2P/R GICAO : "Geometry, Image and CFAO", University Joseph Fourier, Grenoble, 2011-present

Leader of the associated team "Geometry and Sensors" between CEA (http://www.cea.fr/) and UJF (University Joseph Fourier), Grenoble, 2011-present

In charge of the project GeoNor : "Geometry for Tangential data" (University Joseph Fourier), Grenoble, 2011-present

Industrial collaborations with companies : ELF-EP, TOTAL-FINA-ELF, CEA-LETI

Member of Laboratory of Excellence PERSYVAL-lab "Pervasive systems and algorithms at the convergence" http://www.persyval-lab.org/

Professor, Laboratoire Jean Kuntzmann, Grenoble,
University Joseph Fourier, Grenoble, 2014

recent publications

[1] Zhong Li, Rachid Ait-Haddou, L. Biard, *Pythagorean hodograph spline spirals that match G^3 Hermite data from circles. Journal of Computational and Applied Mathematics*, 278, pp. 162-180, 2015.

[2] Mathieu Huard, Rida Farouki, Nathalie Sprinsky, L. Biard, *C2 interpolation of spatial data subject to arc-length constraints using Pythagorean-hodograph quintic splines. Graphical Models*, 76(1):30–42, January 2014.

[3] Mathieu Huard, Nathalie Sprynski, Nicolas Szafran, L. Biard, *Reconstruction of quasi developable surfaces from ribbon curves. Numerical Algorithms*, 63(3):483–506, July 2013.

[4] Mathieu Huard, Rida Farouki, Nathalie Sprynski, L. Biard, *Splines PH quintiques pour l'interpolation C2 sous contraintes de longueur. Revue Electronique Francophone d'Informatique Graphique*, 7(1):67–79, 2013.

[5] M. Huard, N. Sprynski, N. Szafran, L. Biard, *Rubans géodésiques pour la segmentation et la reconstruction de surfaces développables*, Journées du Groupe de Travail en Modélisation Géométrique, Strasbourg, pp 7, 21-22 mars 2012

[6] Carlotta Giannelli and L. Biard, *On the interpolation of concentric curvature elements. Computer-Aided Design*, 43(6):586–597, June 2011.

[7] M. Huard, N. Sprynski, N. Szafran, L. Biard, *Interpolation géodésique dun polygone curviligne*, 24èmes journées de l'AFIG, Bidart, pp. 55-59, 12-14 october 2011.

[8] M. Huard, N. Sprynski, B. Lacolle, L. Biard, *Serret Frenet frame interpolation under length constraints for surface reconstruction*, Journées du Groupe de Travail en Modélisation Géométrique, Grenoble, pp 155-160, March 2011

[9] Nathalie Sprynski, Bernard Lacolle and Luc Biard, *Motion Capture of an Animated Surface via Sensors Ribbons*, First International Conference on Pervasive and Embedded Computing and Communication Systems, Vilamoura, Algarve, Portugal, pp. 421-426, 5-7 March, 2011.

[10] Luc Biard, *Surface reconstruction from micro-sensors and geodesics*, Journées Informatique et Géométrie, Grenoble, 27-28 September 2010.

[11] Rachid Ait-Haddou, Taishin Nomura and Luc Biard, *Geometry of Polynomials From a CAGD perspective*, 7th International Conference on Curves and Surfaces, Avignon, France, June 2010

[12] L. Biard, Rida T. Farouki, Nicolas Szafran, *Construction of rational surface patches bounded by lines of curvature. Computer Aided Geometric Design*, 27(5):359–371, June 2010.

[13] Farouki R. T., N. Szafran, L. Biard, *Construction and smoothing of triangular Coons patches with geodesic boundary curves*, Computer Aided Geometric Design, Volume 27(4), pp. 301–312, 2010.

[14] Rachid Ait-Haddou, Taishin Nomura and Luc Biard, *A Refinement of the Variation Diminishing Property of Bézier Curves*, Computer Aided Geometric Design, Volume 27, Issue 2, pp 202-211, February 2010.

[15] Farouki R. T., N. Szafran, L. Biard, *Construction of Bézier surface patches with Bézier curves as geodesic boundaries*, Computer-Aided Design 41, pp. 772–781, 2009.

[16] Farouki R. T., N. Szafran, L. Biard, *Existence conditions for Coons patches interpolating geodesic boundary curves*, Computer Aided Geometric Design, Volume 26, Issue 5, pp. 599-614, June 2009

[17] Ait-Haddou Rachid, Walter Herzog and Luc Biard, *Pythagorean-hodograph ovals of constant width*, Computer Aided Geometric Design, Volume 25, 4-5, pp. 258–273, May 2008

[18] N. Sprynski, N. Szafran, B. Lacolle, L. Biard, *Surface reconstruction via geodesic interpolation*, Computer-Aided Design, Volume 40, Issue 4, pp. 480-492, April 2008

[19] N. Sprynski, B. Lacolle, D. David, and L. Biard, *Curve Reconstruction via a Ribbon of Sensors*, In Proceeding of the 14th IEEE International Conference on Electronics, Circuits and Systems, ICECS - 2007, Marrakech, Maroc, December 2007

[20] N. Sprynski, B. Lacolle, L. Biard, D. David, *Curve and Surface Reconstruction via Tangential Information*, "Curve and Surface Design : Avignon 2006", P. Chenin, T. Lyche, L. L. Schumaker (eds), Nashboro Press, pp. 254–263, 2007