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PUBLICATIONS:

Thesis

- Ibarra-Castanedo C. "Quantitative Subsurface Defect Evaluation By Pulsed Phase Thermography: Depth Retrieval with the Phase," *Ph.D. Thesis*, Laval University. *in course*
- Ibarra-Castanedo C. "Caractérisation expérimentale des échanges sensibles et latents dans un échangeur de chaleur à contre courant pour la gestion de l'humidité dans des serres," *M.Sc. Thesis*, Laval University, 2000. *in French*

Refereed Journal Papers

- * Ibarra-Castanedo C., Avdelidis N. P., Grinzato E. G., Bison P.G., Marinetti S., and Maldague X. "Quantitative Assessment of Flat & Complex Shape Composites Using Pulsed Phase Thermography," *NDT & E International*, 2005. *in preparation*
 - * Ibarra-Castanedo C., Avdelidis N. P. and Maldague X. "Quantitative assessment of steel plates using pulsed phase thermography," *Materials Evaluation*, 2005. *submitted*
 - * Ibarra-Castanedo C. and Maldague X. "Interactive Methodology for Optimized Defect Characterization by Quantitative Pulsed Phase Thermography," *Research in Nondestructive Evaluation*, 2005. *submitted*
 - * González D. A., Ibarra-Castanedo C., Madruga F. J. and Maldague X. "Differentiated Absolute Phase Contrast Algorithm for the Analysis of Pulsed Thermographic Sequences," *Infrared Physics and Technology*, 2005. *submitted*
- [1] Ibarra-Castanedo C., González D., Klein M. Pilla M., Vallerand S. and Maldague X. "Infrared Image Processing and Data Analysis," *Infrared Physics and Technology*, **46**(1-2):75-83, 2004.
 - [2] Ibarra-Castanedo C. and Maldague X. "Pulsed Phase Thermography Reviewed," *QIRT Journal*, **1**(1):47-70, 2004.
 - [3] Avdelidis N. P., Ibarra-Castanedo C., Maldague X., Marioli-Riga Z. P., Almond D. P., "A Thermographic Comparison Study for the Assessment of Composite Patches," *Infrared Physics and Technology*, **45**(4):291-299, 2004.
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 - [5] Ibarra-Castanedo C., Jacquet P. and Rousse D. R. "Intercambiador de calor para el control de humedad en invernaderos," *Ciencia UANL*, **4**(1):63-68, 2001.

Refereed Conference Proceedings

- * Ibarra-Castanedo C., Avdelidis N. P., Grinzato E. G., Bison P. G., Marinetti S., Maldague X. "Thermography Approaches on Plastered Mosaics," *8th International Workshop on Advanced Infrared Technology and Applications (AITA 8)*, Rome, Italy, September 7 - 10, 2005. *submitted*.
- * Ibarra-Castanedo C. and Maldague X. "Quantitative Characterization of Non-planar Aluminum Specimens by Pulsed Phase Thermography," *Fifth International Workshop Advances in*

Signal Processing for Non Destructive Evaluation of Materials (IWASPNDE), Université Laval, Quebec City (Quebec) Canada, 2-4 August, 2005. *submitted*.

- * Ibarra-Castanedo C., Avdelidis N. P., Grinzato E. G., Bison P. G., Marinetti S., Maldague X. "Quantitative Assessment of Flat & Complex Shape Composites Using Pulsed Phase Thermography," *5th International Workshop Advances in Signal Processing for Non Destructive Evaluation of Materials (IWASPNDE)*, Université Laval, Quebec City (Quebec) Canada, 2-4 August, 2005. *submitted*.
- * González D. A., Ibarra-Castanedo C., López-Higuera J. M., and Maldague X. "New Algorithm based on the Hough Transform for the Analysis of Pulsed Thermographic Sequences," *5th International Workshop Advances in Signal Processing for Non Destructive Evaluation of Materials (IWASPNDE)*, Université Laval, Quebec City (Quebec) Canada, 2-4 August, 2005. *submitted*.
- [6] Ibarra-Castanedo C. and Maldague X. "Pulsed Phase Thermography Inversion Procedure using Normalized Parameters to Account for Defect Size Variations," *Proc. SPIE - The International Society for Optical Engineering, Thermosense XXVII*, **5782**:334-341, Orlando, FL, 2005.
- [7] Ibarra-Castanedo C. Avdelidis N. P. and Maldague X. "Quantitative Pulsed Phase Thermography Applied to Steel Plates," *Proc. SPIE - The International Society for Optical Engineering, Thermosense XXVII*, **5782**:342-351, Orlando, FL, 2005.
- [8] Ibarra-Castanedo C., González D. A. and Maldague X. "Automatic Algorithm for Quantitative Pulsed Phase Thermography Calculations," *CD of Proceedings 16th WCNDT - World Conference on Nondestructive Testing*, Montreal (Quebec), August 30 - September 3, 2004.
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- [11] Ibarra-Castanedo C. and Maldague X. "Pulsed Phase Thermography Reviewed," *Proc. QIRT 7 – Quantitative Infrared Thermography*, Rhode-Saint-Genèse, Belgium, July 5-8, 2004.
- [12] González D. A., Ibarra-Castanedo C., Pilla M., Klein M., López-Higuera J. M. and Maldague X. "Automatic Interpolated Differentiated Absolute Contrast Algorithm for the Analysis of Pulsed Thermographic Sequence," *Proc. QIRT 7 – Quantitative Infrared Thermography*, Rhode-Saint-Genèse, Belgium, July 5-8, 2004.
- [13] Ibarra-Castanedo C. and Maldague X. "Traitement numérique de données thermiques par thermographie de phase pulsée quantitative pour l'évaluation non-destructive des matériaux," *Proc. CCECE-Canadian Conference on Electrical and Computer Engineering*, Volume 3, Canadian Conference on Electrical and Computer Engineering; Technology Driving Innovation, p 1757-1760. Niagara Falls (Ontario), May 2-5, 2004. *Poster in French (56 x 42 in)*
- [14] Ibarra-Castanedo C. and Maldague X. "Defect Depth Retrieval from Pulsed Phase Thermographic Data on Plexiglas and Aluminum Samples," *Proc. SPIE - The International Society for Optical Engineering, Thermosense XXVI*, **5405**:348-355, 2004.
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- [16] Torresan H., Turgeon B., Ibarra-Castanedo C., Hébert P. and Maldague X. "Advanced Surveillance Systems: Combining Video and Thermal Imagery for Pedestrian Detection," *Proc. SPIE - The International Society for Optical Engineering, Thermosense XXVI*, **5405**:506-515, 2004.
- [17] Ibarra-Castanedo C., Galmiche F., Darabi A., Pilla M., Klein M., Ziadi A., Vallerand S., Pelletier J.-F. and Maldague X. "Thermographic nondestructive evaluation: overview of recent progress," *Proc. SPIE - The International Society for Optical Engineering, Thermosense*

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- [20] Ibarra-Castanedo C. and Rouse D. R. "Thermal Characterization of a Multitube Heat Exchanger with Phase Change," *Proc. 4^e Colloque Interuniversitaire Franco-Québécois de Thermique*, Montréal (Quebec) Canada, 1999, p 65-70. *30 minutes oral presentation in French*

Refereed Conference Abstracts

- [21] Ibarra-Castanedo C., Galmiche F. and Maldague X. "Synthetic Data in Infrared Thermography for NonDestructive Evaluation," *Proc. Annual Congress of the Canadian Association of Physicists (CAP)*, Quebec City (Quebec) Canada, June 2-5, 2002, p 88. *30 minutes oral presentation*
- [22] Ibarra-Castanedo C. and Rouse D. R. "Experimental Thermal Characterization of a Counterflow Heat Exchanger with Phase Change," *Proc. 17^e Canadian Congress of Applied Mechanics (CANCAM 1999)*, Hamilton (Ontario) Canada, May 30-June 3, 1999, p 281-283. *25 minutes oral presentation*

Research Reports

- Ibarra-Castanedo C., Rivet-Sabourin G., Fournials R. and Maldague X. M. "Exploitation dans les bandes visible et infrarouge des données spectrales du maïs en serre à différents niveaux de stress azoté et de stress hydrique," *Faculté de Foresterie et de Géomatique, Laval University*, 53 p, May 2002. *in French*
- Ibarra-Castanedo C. and Desobry S. "Rapport d'étude préliminaire sur la modélisation d'un indice qualité pour pommes et pêches," *Final Report pour Ahlstrom Paper Group*, Pont-Evêque, France, 22 p, July 2001. *in French*
- Ibarra-Castanedo C. and Desobry S. "Rapport d'étude préliminaire sur la modélisation d'un indice qualité pour pommes et pêches," *Final Report CTIFL*, Paris, France, 38 p, July 2001. *in French*
- Martin D., Rouse D., Thériault R., Boily R., Boudreault J., Leveillé F., Lemay G., Ibarra-Castanedo C. and Poire P. "Optimisation et essai d'un échangeur de chaleur conçu pour la déshumidification des serres," *Final Report CIDES*, Saint-Hyacinthe (QC) Canada, 41 p, February 1999. *in French*