AAIA PRESENTATIONS
YEARS 2000 – 2004

YEAR 00-01

M. Velez-Reyes, **"Band Selection Methods for Hyperspectral Image Processing Using Matrix Factorization Methods",** *Center for Subsurface Sensing and Imaging Systems Research and Industrial Collaboration Conference*, Boston, MA, Nov. 13-15, 2000.

M. Velez-Reyes, "**Inverse Problems in Hyperspectral Image Processing**", *Center for Subsurface Sensing and Imaging Systems Research and Industrial Collaboration Conference*, Boston, MA, Nov. 13-15, 2000.

Elmy Perez, and Nivia Colon-Diaz, **"Multi-Dimensional Cloud Images Retrieval from Ground Based Radar Operating at Ka and Millimeter Wave Frequencies**", IAP *Annual Meeting*, Mayaguez, PR, April 2001.

YEAR 01-02

Hamed Parsiani, "**Soil Moisture Content Extraction, Using Images from Ground Penetrating Radar"**, *NOAA-CREST Technical Conference*, CUNY New York, Feb. 19-21, 2002.

Ruth Riechehoff and Hamed Parsiani, **"Image Processing with Discrete Fourier Transform and Histogram",** *Puerto Rico Space Grant Conference (PRSGC)*, Dorado, Puerto Rico, Nov. 2001.

Hector, Ortiz and Hamed Parsiani, **"Image Processing and Noise Removal",** *Puerto Rico Space Grant Conference (PRSGC),* Dorado, Puerto Rico, Nov. 2001.

Ingrid M. Pla, Beatriz Cruz and Hamed Parsiani, **"Map of the Soil Types of Puerto Rico"** *Puerto Rico Space Grant Conference (PRSGC),* Dorado, Puerto Rico, Nov. 2001.

Miguel Vélez-Reyes, Daphnia M. Linares, and Luis O. Jimenez, **"Dimensionality Reduction in Hyperspectral Image Processing using Matrix Factorization Algorithms."** *Puerto Rico Space Grant Conference (PRSGC)*, Dorado, Puerto Rico, Nov. 2001.

Luis O. Jiménez and Fernando Gilbes, **"Coral Reefs Problem Seminar",** *CenSSIS Industry Seminar*, February 2002.

Torres, Carlos, M. Alvarez and S. L. Cruz-Pol, "**Absolute Humidity Algorithms for Brightness Temperature Estimation**", *ACS 37th Junior Technical Meeting* March 2002, Areca, Puerto Rico.

Héctor Ortiz, et al, **"3-D Compression",** *Puerto Rico Space Grant Conference*

(PRSGC), Dorado, Puerto Rico, Nov. 2001.

Harold Cruzado J., **"Applications of Remote Sensing for the Modeling of the Caribbean Climate,"** *ACS 37th Junior Technical Meeting,* Arecibo PR, March 2002.

Beatriz Cruz Gonzalez and Ingrid Militza Pla Rodriguez, **"Applications of Remote Sensing for the Modeling of the Caribbean Climate,"** *ACS 37th Junior Technical Meeting,* Arecibo PR, March 2002.

Mabel Ramirez, **"Regularization Technique for Parameter Estimation,"** *CenSSIS Industry Seminar,* Boston MA, February 2002.

Yahya Masalmah, **"Statistical Modeling of Clutter in Hyperspectral Data using 3D Markov Random Fields."** *CenSSIS Industry Seminar,* Boston MA, February 2002.

Emmanuel Arzuaga, **"Feature Extraction and Dimensional Reduction Algorithms for Hyperspectral Data,"** *CenSSIS Industry Seminar,* Boston MA, February 2002.

Eladio Rodriguez, **"Image Reconstruction and Subsurface Detection by the Application of Tikhonov Regularization to Inverse Problems in Hyperspectral Images,"** *CenSSIS Industry Seminar,* Boston MA, February 2002.

Diego Rivera, **"Feedback in Pattern Recognition."** *CenSSIS Industry Seminar,* Boston MA, February 2002.

YEAR 02-03

M. Vélez-Reyes. **"Unsupervised Feature Subset Selection using Matrix Factorization Methods with Application to Hyperspectral Imagery Band Subset Selection."** *PRECISE & Doctoral Program in CISE Computing and Information Sciences and Engineering Technical Lecture Series.* January 30, 2003.

M. Vélez-Reyes. **"Feature Subset Selection in Large Spaces using Vector Space Methods and their Application to Hyperspectral Band Subset Selection."** *Signal and Imaging Sciences Workshop at Lawrence Livermore National Laboratory,* November 14-15, 2002.

Luis O. Jimenez, "**Unsupervised Feature Extraction Techniques for Hyperspectral Data and its Effects on Unsupervised Classification**", *PRECISE & Doctoral Program in CISE Computing and Information Sciences and Engineering Technical Lecture Series,* February 13, 2003.

Mabel Ramirez, **"Regularization Technique for Parameter Estimation and Object Detection on Hyperspectral Data,"** *Research and Industrial Collaboration Conference 2002,* Northeastern University, Boston, Massachusetts, November 2002.

Mabel Ramirez, **"Regularization Technique for Parameter Estimation and Object Detection on Hyperspectral Data,"** *NSF-Annual ERC Meeting,* Washington DC, November, 2002.

Eladio Rodriguez, **"Subsurface Detection by the Application of Tikhonov Regularization to Inverse Problems in Hyperspectral Images,"** *Research and Industrial Collaboration Conference 2002,* Northeastern University, Boston, Massachusetts, November 2002.

YEAR 03-04

H. Parsiani, **"Usage of GPR in moisture determination",** October 9 & 10, 2004, *NOAA-CREST Leadership Meeting,* New York, NY.

M. Vélez-Reyes, **"PECASE at a Non-PhD Granting Institution",** January 21-23, 2004, *NSF CAREER Mentoring and Networking Workshop,* National Science Foundation, Arlington, VA, January 21-23, 2004.

M. Vélez-Reyes, **"Feature Subset Selection in Large Data Sets using Matrix Factorizations with Application to HSI Band Subset Selection",** December 2003, *Center for Spatial Technologies and Remote Sensing,* University of California at Davis.

M. Vélez-Reyes, **"Tropical Center for Earth and Space Studies: A NASA University Research Center**", November 19 - 21, 2003, *Puerto Rico Space Grant Consortium Second Congress on Integrating NASA Research and Education Projects in Puerto Rico,* Wyndham Condado Plaza Hotel, San Juan.

M. Vélez-Reyes, **"NSF Center for Subsurface Sensing and Imaging",** November 14, 2003, *Industry-University Symposium on Electrical Engineering (IUSEE*), Colegio de Ingenieros y Agrimensores de Puerto Rico, San Juan, P.R.

M. Vélez-Reyes and A. Stankovic, "**Challenges in Modeling and Identification of Power Systems: Dealing with Ill Conditioning, High Dimensionality, and other Challenges",** November 3-4, 2003, *NSF Worshop on Applied Mathematics for Deregulated Electric Power Systems: Optimization, Control, and Computational Intelligence,* Doubletree Hotel Crystal City-National Airport, Alexandria, VA.

E. Arzuaga-Cruz, L.O. Jimenez-Rodriguez, D. Kaeli, M. Velez-Reyes, E. Rodriguez-Diaz, L.E. Santos-Campis, and C. Santiago, **"MATLAB Toolbox for Hyperspectral Image Analysis",** October 27/28, 2003, *IEEE Workshop on Advances in Techniques for Analysis of Remotely Sensed Data,* NASA Goddard Visitor Center, Washington DC, USA.

M. Vélez-Reyes and S. Hunt, **"Hyperspectral Image Processing Research at CenSSIS UPRM",** August 21, 2003, *National Imagery and Mapping Agency,* Reston, VA.