

# Measurement Science and Standards in Forensic Handwriting Analysis

June 4-5 2013  
DRAFT AGENDA



## June 4, 2013

**8:30 – 9:00 AM** **Arrive at NIST Green Auditorium and Visit Registration**

**9:00 – 9:30 AM** **Welcoming Remarks**

**National Institute of Standards and Technology (NIST)** – John Paul Jones II, Program Manager, NIST

**National Institute of Justice (NIJ)** – Heather Waltke, Associate Director, Office of Investigative and Forensic Sciences, National Institute of Justice

**Scientific Working Group on Forensic Document Examinations (SWGDOC)** – Ted Burkes, SWGDOC Chair, FBI

**American Academy of Forensic Sciences – Questioned Documents Section, American Board of Forensic Document Examiners, & American Society of Questioned Document Examiners** – Jane Lewis, AAFS-QD Chair, Private Examiner

**9:30 – 10:15 AM** **Current State of Handwriting Examinations**

**Forensic Handwriting Examinations: The Progression to our Current State** – John Paul Osborn, Forensic Document Examiner, Osborn & Son; Peter Tytell, Forensic Document Examiner, and Rigo Vargas, Questioned Documents Section Chief, Mississippi Crime Laboratory

**10:15 – 10:30 AM** **Break**

**10:30 – 12:00 PM** **Foundational Science Behind Handwriting**

**Handwriting Stroke Kinematics** – Linton Mohammed, PhD, D-ABFDE, Forensic Document Examiner, Forensic Science Consultants, Inc.

**Neuroscience behind the Motor Control and Motor Equivalence of the Handwriting Function:** – Dr. Michael Caligiuri, Professor, University of California – San Diego

**Cognitive Theoretical Perspectives in Studies of Forensic Document Examination including “What Examiners Look At” (i.e. Eye-tracking)** – Dr. Mara Merlino, Assistant Professor of Psychology, Kentucky State University

**12:00 – 1:00 PM** **Lunch (on your own)**

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## **1:00 – 2:30 PM    Reproducibility & Reliability Studies**

**Performance of Forensic Document Examiners including Reliability & Repeatability** – Moshe Kam, Professor, Drexel University

**Testing Examiners Performance (Homogeneous Writing Research)** - Marie Durina, Senior Forensic Document Examiner, San Diego Sheriff's Crime Laboratory

**The Lineup: 1,000 Handwriting Samples** – David Parrett, Forensic Document Examiner

## **2:30 – 2:45 PM    Break**

## **2:45 – 5:00 PM    Advances in Measurement Science in Handwriting Examinations**

**Introduction to Quantitative Systems for Forensic Handwriting Comparisons** – JoAnn Buscaglia, Research Chemist, FBI (moderator)

**The Forensic Language-Independent Analysis System for Handwriting Identification (FLASH ID)** – Mark Walch, President CEO, Gannon Technologies Group and Dr. Don Gantz, Statistician, George Mason University

**Forensic Information System for Handwriting (FISH)** – Kathleen Storer, Forensic Document Examiner, United States Secret Service

**WANDA - a Measurement tool for Forensic Document Examiners** – Dr. Katrin Franke, Professor of Computer Science and Director of the Digital Forensics and Cybercrime Investigation Laboratory at Gjøvik University College

**Scale Invariant Feature Transform (SIFT)** – Dr. Jeff Woodard, Researcher, Mitre (INVITED)

**D-Scribe** – Michael Carpenter, Siemens (**Speaker TBD**)

**CEDAR FOX and iFOX**– Sargur Srihari, Professor, SUNY – Buffalo

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## **June 5, 2013**

## **8:30 – 9:00 AM    Arrive at NIST Green Auditorium and Visit Registration**

## **9:00 – 10:30 AM    Advances in Statistics for Handwriting Examinations #1**

**Trends in Frequency Occurrence of Handwriting and Hand Printing Characteristics** – Thomas Vastrick

**Bayesian Methods in Handwriting Analysis** - Brent Ostrum, Senior Document Forensic Examiner, Canadian Border Services Agency

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**Understanding Individuality of Handwriting Using Score-Based Likelihood Ratios** - Dr. Christopher Saunders, Mathematical Statistician, South Dakota State University

**Development of Individual handwriting Characteristics in 1800 Students: Statistical Analysis and Likelihood Ratios that Emerge over an Extended Period of Time** – Lisa Hanson, Forensic Document Examiner, Minnesota Bureau of Criminal Apprehension Laboratory

**10:30 – 10:45 AM Break**

**10:45 – 11:30 AM Advances in Statistics for Handwriting Examinations #2**

**Handwriting Evidence Evaluation Based on the Shape of Characters: Application of Multivariate Likelihood Ratios** - Ray Marquis, Institute of Forensic Science, University of Lausanne (UNIL)

**Statistical Basis to Determine Probabilities of Occurrence of Handwriting Characteristics** - Kirsten Singer, D-ABFDE, Department of Veteran Affairs, OIG and Sargur Srihari, Professor, SUNY – Buffalo

**11:30 – 12:45 PM Legal Implications of Quantitative Testimony**

**Update from Working Group on Presenting Forensic Science Evidence Using Quantitative and Qualitative Terms (QQWG)** – Melissa Taylor, Management Analyst, NIST

**Presenting Quantitative Techniques and Conclusions in Court** – Kenneth Melson, Professorial Lecturer in Law, George Washington University Law School & Office of the Inspector General, US Postal Service

**How the Human Mind Interprets Quantitative Information** – Dr. Shari Diamond, Howard J. Trienens Professor of Law, Professor of Psychology, Research Professor, Northwestern University School of Law (INVITED)

**12:45 – 2:00 PM Lunch (on your own)**

**2:00 – 3:15 PM Other Examination Tools to Support Metrics**

**Using the Statistical Functions of Write-On Software to Assess Natural Variation in Handwriting** – Brian Lindblom, Forensic Document Examiner, Document Examination Consultants, Inc., Ottawa Canada

**Electronic Signatures Research** – William Flynn, Private FDE, AFL, Inc. (INVITED)

**Analyzing Scanned Documents and What Banks are Doing** – Janet Fenner Masson, Forensic Document Examiner & Jane Lewis, AAFS-QD Section Director, Private Examiner

**3:15 – 3:30 Break**

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### 3:30 – 5:00 PM      Facilitated Discussion

**Issues to Discuss:**

- What does the future state of handwriting examinations look like?
- What are the barriers to implementing the future state?
- Design a Roadmap to achieve the future state
- Topics: NAS Statement, Technology, Risk, Research, Validation, Policy, Standards, Legal Admissibility, Cost, DOJ National Commission on Forensic Science

**Facilitator:** John Paul Jones II, Program Manager, NIST and/or Forensic Document Examiner

**Knowledge Capture:** SAIC Representative

### 5:00 PM                      Meeting Summary & Next Steps

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