



# QUESTIONED DOCUMENTS

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## Wednesday

### Poster Session

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- 11:30 a.m. - 1:00 p.m. **J1** **A Pre-Osborn Timeline of Events and References Concerning Handwriting Examination and Forgery**  
*Judith A. Gustafson, BS\**
- 11:30 a.m. - 1:00 p.m. **J2** **Education and Training in Forensic Document Examination: A Discussion of Issues and Ideas**  
*Mara L. Merlino, PhD\*; Veronica B. Dahir, PhD\*; Mauricio Alvarez, PhD; Chris Sanchez, MA; J. Guillermo Villalobos, MA; Chris Swinger, MA; Denise Schaar Buis, MA*
- 11:30 a.m. - 1:00 p.m. **J3** **Evaluation of Gray Value Measurements of Visual Spectral Data to the Characterization of Alcohol-Based Inks From Colored Felt-Tipped Blending Markers**  
*Clarra G. Moore, BS\*; Patrick Buzzini, PhD*
- 11:30 a.m. - 1:00 p.m. **J4** **Laser Printer Identification: A Real Case Study**  
*Jasna Galekovic\**

## Thursday

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*Moderator: Ronald N. Morris, BS  
RNM&AI  
Bedford, VA*

- 8:30 a.m. - 8:40 a.m. **Introduction**
- 8:40 a.m. - 9:00 a.m. **J5** **Measuring the Frequency Occurrence of Handwritten Numerals: An Expanded Database**  
*Thomas W. Vastrick, BS\*; Ellen M. Schuetzner, BA; Kelsey Osborn*
- 9:00 a.m. - 10:00 a.m. **J6** **Cognitive Human Factors and Forensic Document Examiner Methods and Procedures: Key Results From an International Study of Handwriting Experts**  
*Mara L. Merlino, PhD\*; Veronica B. Dahir, PhD\*; Derek L. Hammond, BA\*; La'Quida Smith, MA\*; Chandler D. Al Namer, BA; Taleb A. Al Namer, BA; Mauricio Alvarez, PhD; J. Guillermo Villalobos, MA; Charles Edwards, MA*
- 10:00 a.m. - 10:15 a.m. **J7** **A Methodology for the Removal of Adhesives**  
*Kevin P. Kulbacki, MSFS\**
- 10:15 a.m. - 10:30 a.m. **Break**
- 10:30 a.m. - 10:55 a.m. **J8** **Analysis of Black Toners Using Scanning Electron Microscopy (SEM)**  
*Anna Lasinska\**
- 10:55 a.m. - 11:10 a.m. **J9** **An Interdisciplinary Study: Alcohol and Its Influence on Breath Alcohol Concentration (BrAC), Blood Alcohol Concentration (BAC), and Handwriting**  
*Andrea Ledic, BS\**

# QUESTIONED DOCUMENTS



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- 11:10 a.m. - 11:30 a.m. **J10** **The Classification of Raman Patterns From Inkjet Printer Inks Using Visual Comparisons of Spectra and Different Statistical Methodologies**  
*Patrick Buzzini, PhD\**; *James M. Curran, PhD*; *Carrie Polston, BA*
- 11:30 a.m. - 11:45 a.m. **Questions & Answers**
- 11:45 a.m. - 1:00 p.m. **Lunch**

## Poster Session

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- 11:30 a.m. - 1:00 p.m. **J11** **Writing Speed and Fluidity and Accuracy of Calls in High and Low Complexity Signature Comparisons**  
*Mara L. Merlino, PhD\**; *Mauricio Alvarez, PhD*; *Taleb A. Al Namer, BA*;  
*J. Guillermo Villalobos, MA*; *Charles Edwards, MA*
- 11:30 a.m. - 1:00 p.m. **J12** **Trends in Forensic Document Examination in Québec, Canada**  
*Mylene A. Signori, BSc\**; *Richard K. Van Gheluwe, BSc*
- 11:30 a.m. - 1:00 p.m. **J13** **The Examination of Crossed Lines for the Determination of Sequence of Strokes Using Laser Ablation-Inductively Coupled Plasma/Mass Spectrometry (LA-ICP/MS) and X-Ray Fluorescence (XRF)**  
*Samiah Ibrahim, BSc\**; *Julie Binette, BS\**; *Mario Larouche, BS*

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*Moderator: Jordan C. Brough, MFS*  
*Homeland Security Investigations Forensic Laboratory*  
*McLean, VA*

- 1:00 p.m. - 1:20 p.m. **J14** **The Comprehensive Analysis of Counterfeit Currency**  
*Irina Geiman, MS\**
- 1:20 p.m. - 1:40 p.m. **J15** **Assessing the Impacts of Induction Spatial Effects on Magnetic Flux Measurements of Toners**  
*Carrie Polston, BA\**; *David E. Thompson, PhD*; *Patrick Buzzini, PhD*  
*(FSF Emerging Forensic Scientist Award Paper Presentation)*
- 1:40 p.m. - 2:00 p.m. **J16** **Contested Estates: A Bloody Mess**  
*Khody R. Detwiler, BS\**
- 2:00 p.m. - 2:15 p.m. **J17** **A Comparative Study of Generation Y and Generation Z Signatures**  
*Nina A. Harnarine, BSc\**
- 2:15 p.m. - 2:35 p.m. **J18** **A Social Science Paradigm for Forensic Handwriting Identification**  
*Carole E. Chaski, PhD\**
- 2:35 p.m. - 2:50 p.m. **Break**
- 2:50 p.m. - 3:10 p.m. **J19** **Seen and Unseen Evidence of the Shroud of Turin and Use of the VP-8 Image Analyzer**  
*Janis Winchester, MS\**



## QUESTIONED DOCUMENTS

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- 3:10 p.m. - 3:40 p.m. **J20** **The Discrimination of Primary and Secondary Impressions on the Second Page of Two-Part Carbonless Copy Paper Using VSC40: A Case Study**  
*Muneeb H. Khan, MPhil\**; *Khurram W. Mahmood, MPhil\**; *Muhammad Irfan Ashiq, PhD\**;  
*Mohammad A. Tahir, PhD\**
- 3:40 p.m. - 4:40 p.m. **J21** **Contemporary Challenges, Expert's Insights, and Judicial Perspectives on Forensic Document Examination Testimony**  
*Jan Seaman Kelly, BA\**; *Stephanie Domitrovich, JD, PhD\**
- 4:40 p.m. - 5:00 p.m. **Questions & Answers**

### Friday

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*Moderator: Donna O. Eisenberg, MFS*  
*Homeland Security Investigations*  
*Forensic Laboratory*  
*Rockville, MD*

- 8:30 a.m. - 8:55 a.m. **J22** **Photo-Polymer Stamps: Their Examination and Identification**  
*F.L. Jim Lee, Jr., MS\**
- 8:55 a.m. - 9:10 a.m. **J23** **Invisible Migration of Luminescent Components in Inks in Crossed-Line Intersections**  
*Rhett Williamson, PhD*; *Daniela Djidrovska, MS*; *Andrea Ledic, BS\**; *Vesna Antikj, MS*;  
*Stjepan Brzica, BS*; *Rolf Hofer, PhD*; *Jose R. Almirall, PhD*
- 9:10 a.m. - 9:25 a.m. **J24** **Reasons for Qualified Opinions in Forensic Document Examination**  
*Jane A. Lewis, MFS\**
- 9:25 a.m. - 9:45 a.m. **J25** **The Admissibility of Hand Printing Identification in the United States Courts**  
*Karen J. Nobles, BA\**
- 9:45 a.m. - 10:00 a.m. **J26** **Pairwise Comparison Scores for Handwritten Questioned Documents**  
*Danica Ommen, PhD\**; *Cami Fuglsby, MS*; *Christopher P. Saunders, PhD*;  
*Michael Caligiuri, PhD*; *Linton Mohammed, PhD*; *JoAnn Buscaglia, PhD*
- 10:00 a.m. - 10:15 a.m. **Break**
- 10:15 a.m. - 10:45 a.m. **J27** **The Evolution of Security Features in International Travel Documents**  
*Carolyn Bayer-Broring, MFS\**
- 10:45 a.m. - 11:00 a.m. **J28** **Adding an Objective Approach to Questioned Document Examination Using Principal Component Analysis (PCA) and Mahalanobis Distance**  
*Loren M. Williams, BS\**; *Lawrence Quarino, PhD*; *Morgan Mills, MSFS*  
*(FSF Emerging Forensic Scientist Award Paper Presentation)*
- 11:00 a.m. - 11:20 a.m. **J29** **An Exploratory Analysis of Handwriting Features: Investigating Numeric Measurements of Writing That Are Important for Statistical Modeling**  
*Amy M. Crawford, MS\**; *Alicia L. Carriquiry, PhD*

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- 11:20 a.m. - 11:35 a.m.    **J30**    **Toward Consensus in Describing the Component Parts of Handwriting**  
*Diane Kruger, JD\**
- 11:35 a.m. - 11:50 a.m.                    **Questions & Answers**
- 11:50 a.m. - 1:00 p.m.                    **Lunch**

## Poster Session

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- 11:30 a.m. - 1:00 p.m.    **J31**    **A Comparison of Gaze Behavior in Sequential Versus Simultaneous Presentation of Signatures in a Handwriting Comparison Task**  
*Mara L. Merlino, PhD\**; *Chandler D. Al Namer, BA*; *Derek L. Hammond, BA*;  
*Robert S. Olson*; *Piarre Easley, BA*
- 11:30 a.m. - 1:00 p.m.    **J32**    **Forensic Characterization and Discrimination of Manila Envelopes**  
*Maria I. Sanchez-Melo, MS\**; *Virginia M. Maxwell, DPhil*; *Irina Geiman, MS*;  
*Brooke W. Kammrath, PhD*  
(FSF Emerging Forensic Scientist Award Poster Presentation)
- 11:30 a.m. - 1:00 p.m.    **J33**    **An Examination of the Influence of Various Parameters on the Quality of Laser Printer Printouts**  
*Jasna Galekovic\**

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*Moderator: Kevin P. Kulbacki, MSFS*  
*Internal Revenue Service*  
*National Forensic Laboratory*  
*Chicago, IL*

- 1:00 p.m. - 3:00 p.m.    **J34**    **Understanding the Impact of Human Factors on Forensic Examinations: Recommendations From the Expert Working Group for Human Factors in Handwriting Examination**  
*Melissa K. Taylor, MA\**; *Ted M. Burkes, BS\**; *Emily J. Will, MA\**; *Reinoud D. Stoel, PhD\**
- 3:00 p.m. - 3:30 p.m.                    **Questions & Answers**