

Impression & Pattern Evidence Symposium



Monday, August 2, 2010

Registration

7:00am - 4:30pm

Lobby 2

Continental Breakfast

7:00am - 8:00am

Lobby 2

Fingerprint Examination

8:00am - 12:00pm

Beach

Instructors will present on the comparison and methodology used for simultaneous impression examinations, admissibility challenges to latent prints, split testimony rulings in other forensic cases, intentional fingerprint mutilation, the changing role of the ten print examiner, and the repeatability and reliability of the comparison process.

Moderator

Leonard Butt, Forensic Scientist, Forensic Sciences Division, Maryland State Police, Pikesville, MD

Presenters

John P. Black, Senior Consultant, Ron Smith and Associates, Inc., Collinsville, MS

David R. Cotton, Training Administrator, Federal Bureau of Investigation, Clarksburg, WV

Melissa R. Gische, Physical Scientist/Forensic Examiner, Latent Print Operations Unit, FBI Laboratory, Quantico, VA

Glenn Langenburg, Forensic Scientist, Latent Prints, Minnesota Bureau of Criminal Apprehension, St. Paul, MN

Laura Tierney, Senior Fingerprint Specialist, Forensic Document Laboratory, U.S. Immigration and Customs Enforcement, McLean, VA

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Firearms and Toolmark Examination

8:00am - 12:00pm

Gulf

This hands-on workshop will present lessons learned in firearms and toolmark examination using actual casework examples. The topics that will be addressed include:

1. Can the quality of two brands of ammunition fired from the same handgun produce a significant level of variation in imparted physical characteristics? Is this enough variation to obfuscate the individualization process, and what other characteristics can be examined to circumvent this potential issue?
2. What do you do in situations when the sub-class characteristics between two cartridges discharged from different firearms are indistinguishable?

Moderator

Nicholas D.K. Petraco, Associate Professor of Forensic Science, John Jay College of Criminal Justice, New York, NY

Presenter

Carl Rone, Forensic Firearm Examiner, Delaware State Police, Dover, DE

The Examination and Evaluation of Footwear Design and Physical Size

8:00am - 12:00pm

Palm

Examination of footwear impression evidence begins by first evaluating whether the specific design and physical size of that design present in the crime scene impression does or does not correspond with the known footwear. Size and design class characteristics have their origins from the way in which the molds are made as well as other manufacturing steps used in producing the sole. The majority of shoe soles made today have molded soles that are computer designed, allowing for many different design and size configurations. Some soles are still made utilizing older techniques including soles that are cut out instead of molded. In any style of footwear, the specific design and physical size features may vary from one mold to another and definitely will vary between sizes. Knowledge of footwear mold features and current manufacturing methods as well as the use of proper methodology is essential for the examiner to conduct this portion of the examination. During this workshop, an extensive look at the current manufacturing methods of footwear will be covered as they apply to case examination. Examples of several common brands and off-brand shoes will be used and displayed to illustrate the physical characteristics that a footwear examiner may find and that might vary from one size or mold design to another. Actual examples from casework will be shown to illustrate some design and physical size features and the conclusions that were reached. Other influencing factors that must be considered during the examination such as the inaccuracies of scales through improper photography, improper lifting techniques or materials, partial impressions, and movement during the impression making process will be addressed regarding their affect on size evaluation. In addition, the topic of estimating the size of footwear based on the information left in the crime scene impression will be addressed. After basic instruction and examples are provided, hands-on casework exercises and photographs will be used to allow each participant to independently strengthen their knowledge. At the conclusion of the workshop, the results of the exercises will be displayed and the significance of the class characteristics will be discussed.

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Moderator and Presenter

William J. Bodziak, Owner, Bodziak Forensics, Palm Coast, FL

Presenter

Christine Snyder, Crime Scene Analyst, Seminole County Sheriff's Office, Sanford, FL

Non-Practitioners Workshop

8:00am - 4:30pm

Sand Key

Introduction, for non-practitioners, to four major impression and pattern disciplines. The four workshops will provide an overview of the methodologies and capabilities of experts in forensic firearm analysis, document examination, tire and footwear impression, and latent print evaluation.

Moderator and Presenter

Jules Epstein, Associate Professor, Widener University School of Law, Wilmington, DE

Presenters

William J. Bodziak, Owner, Bodziak Forensics, Palm Coast, FL

Lauren E. Cooney, Examination Services Lead, Biometrics Identity Management Agency, U.S. Department of Defense, Clarksburg, WV

Peter Diaczuk, Director of Forensic Science Training, Center for Modern Forensic Practice, John Jay College of Criminal Justice, New York, NY

Diana Harrison, Unit Chief, Questioned Documents, Federal Bureau of Investigation, Quantico, VA

12:00pm - 1:30pm

Lunch on Your Own

Uncertainty, Probability, and Statistics

1:30pm - 4:30pm

Island

While it is clear that testimony in forensic evidence is headed in the direction of expressing the degree of uncertainty present, the best methods of doing so are still being discussed among scientists. On the one hand there is the DNA style of stating that the chance that a randomly selected person would have the same pattern as observed in the evidence is 1 in a very large number. On the other hand one states a likelihood ratio—which is based on an evidence similarity measure conditioned on the prosecutor and defense hypotheses. This workshop will present these approaches, their relative advantages/disadvantages, opinion scales and associated statistical/computational issues.

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Moderator

Sargur Srihari, Professor, Computer Science and Engineering, State University of New York, Buffalo, NY

Presenters

Christophe Champod, Professor, Institut de Police Scientifique, University of Lausanne, Switzerland

Glenn Langenburg, Forensic Scientist, Latent Prints, Minnesota Bureau of Criminal Apprehension, St. Paul, MN

Cedric Neumann, Assistant Professor in Statistics, Forensic Program, The Pennsylvania State University, State College, PA

Standardized Test Methods and Insuring Quality in the Laboratory Relating to the Comparative Forensic Sciences

1:30pm - 5:00pm

Gulf

An effective Quality Assurance system is a vital component in the crime laboratory. The NAS report references this issue and makes this an important subject facing forensic examiners. This workshop will provide information on several aspects of addressing quality assurance and implementing quality processes in the comparative sciences. Topics presented will include ISO requirements and accreditation issues as they pertain to the comparative sciences, current and future SWGTREAD, SWGFAST, SWGGUN and SWGDOC documents and projects, and an overview of existing certification programs for shoe print / tire track examiners, latent print examiners, firearm examiners and document examiners.

Moderator

Sandy Parent, Forensic Scientist, Crime Laboratory, Texas Department of Public Safety, Austin, TX

Presenters

Ted M. Burkes, Forensic Document Examiner, FBI Laboratory, Quantico, VA

Leonard Butt, Forensic Scientist, Forensic Sciences Division, Maryland State Police, Pikesville, MD

Lesley Hammer, Forensic Scientist, Hammer Forensics LLC, Anchorage, AK

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Lisa Hanson, Forensic Document Examiner, Bureau of Criminal Apprehension, Department of Public Safety, St. Paul, MN

Greg Klees, Firearms and Toolmark Examiner, National Laboratory Center, Bureau of Alcohol, Tobacco, Firearms and Explosives, Ammendale, MD

John K. Neuner, International Program Manager, ASCLD/LAB - International, Garner, NC

Rodney A. Schenck, Technical Leader, Latent Print Branch, U.S. Army Criminal Investigation Laboratory, Forest Park, GA

Lyla Thompson, Supervisor, Latent Print Section, Crime Laboratory, Johnson County, Kansas Sheriff's Office, Mission, KS

Robert M. Thompson, Program Manager, Forensic Data Systems, Office of Law Enforcement Standards, National Institute of Standards and Technology, Gaithersburg, MD

Analysis Reports: Do Your Written Conclusions Reflect Your Testimony?

1:30pm - 4:30pm

Palm

Crime laboratories are standardizing their report format to meet accreditation requirements and the requirements listed under the National Academies Report; Strengthening Forensic Science in the United States: A Path Forward. Although the format for the report is being standardized, variability still exists in the content provided under those standardized topic headings. The results/conclusion area can be the most controversial point of an issued report. Does the selected verbiage actually reflect the examiner's interpretation of the test results and how is this information being used in the courtroom. Experts from different disciplines will provide examples of reports and the respective conclusions. Each expert will detail the test analysis and identify why the selection of inconclusive, non-identification or exclusion was made and how these decisions can be supported. At the summation of the workshop, an attorney will provide interpretation of the offered report conclusions and how this information would be used in court.

Moderator

Susan Ballou, Program Manager for Forensic Science, Office of Law Enforcement Standards, National Institute of Science and Technology, Gaithersburg, MD

Presenters

Adam J. Freeman, Dentist, Westport, CT

Christine Funk, Attorney at Law, Office of the Public Defender, Hastings, MN

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Glenn Schubert, Forensic Scientist, Southern Illinois Forensic Science Center, Illinois State Police, Carbondale, IL

Robert M. Thompson, Program Manager, Forensic Data Systems, Office of Law Enforcement Standards, National Institute of Standards and Technology, Gaithersburg, MD

Effective Courtroom Preparation and Presentation

1:30pm - 4:30pm

Bay

Don't be the expert that fails on the witness stand! Providing expert courtroom testimony starts before you step into the courtroom. It is your job to educate, instruct, and develop a working relationship with the attorney prior to any testimony. Effective testimony involves demeanor, appearance, presentation, and knowledge. This workshop will provide insight into these areas as well as the "CSI effect" many of us have been burdened with.

Moderator

Jules Epstein, Associate Professor, Widener University School of Law, Wilmington, DE

Presenter

Kimberlianne Podlas, Associate Professor, University of North Carolina, Greensboro, NC

Digital Imaging of Footwear and Tire Track Evidence and the Application of Photoshop to Pattern Evidence

1:30pm - 4:30pm

Beach

This workshop will cover fundamental and advanced methods of digitally capturing footwear and tire track evidence both in the field and the laboratory. Topics will include equipment selection, lighting techniques, resolution and file format selection, as well as hands-on demonstration of proper documentation techniques. Further topics will include utilization of Adobe Photoshop when working with impression evidence images including importing, sizing, and enhancement. Additionally, specific techniques that aid in comparisons and demonstration of findings will be taught, including distinguishing multiple overlapping impressions, annotation, and preparing demonstrative evidence.

Moderator

Ryan S. Tomcik, Consultant, Booz Allen Hamilton, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC

Presenters

Brett Doretti, Lead Forensic Specialist, Crime Laboratory, Orange County Sheriff's Department, Santa Ana, CA

Brian McVicker, Forensic Examiner, FBI Laboratory, Quantico, VA

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Tuesday, August 3, 2010

Registration

7:30am - 3:30pm

Lobby 2

Continental Breakfast

7:30am - 8:30am

Lobby 2

Welcome and Opening Remarks

8:30am - 9:00am

General Session

Grand Ballroom

Michael G. Sheppo, Director, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC

The Scientific Foundations of Forensic Science

9:00am - 10:30am

Grand Ballroom

What are the scientific foundations of forensic science? To what extent are the pattern identification disciplines already 'scientific,' and to what extent is additional research and study needed in order to place them on a truly 'scientific' footing? What exactly does this label 'scientific' mean, anyway, and how much does it matter, for understanding, evaluating, and possibly improving the pattern identification disciplines? This panel will offer a variety of perspectives and frameworks for thinking about these questions, questions that have gained particular currency in the wake of both Daubert challenges to the admissibility of pattern identification evidence, and the National Academy of Science's 2009 report on forensic science.

Moderator

Jay Siegel, Director, Forensic Science Program, Indiana University-Purdue University, Indianapolis, IN

Presenter

Joseph P. Bono, Adjunct Instructor, Forensic and Investigative Sciences Program, Indiana University-Purdue University Indianapolis, President, American Academy of Forensic Sciences, Indianapolis, IN

David Faigman, Professor of Law, Hastings College of the Law, University of California, San Francisco, CA

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Jim Fraser, Director, Centre for Forensic Science, University of Strathclyde, Glasgow, Scotland, United Kingdom

Jennifer Mnookin, Professor, Law Department, University of California, Los Angeles, CA

10:30am - 11:00am

Break

Future Direction for Forensics: Issues of Bias and Statistics

11:00am - 12:30pm

Grand Ballroom

The future of forensic science will involve efforts to eliminate bias in expert opinion and quantification of uncertainty. While automated systems such as AFIS (for latent prints) promise a higher degree of objectivity they may bring in other issues of bias. Statistics may help quantify uncertainty but there are differing opinions on how to go about it.

Moderator

Sargur Srihari, Professor, Computer Science and Engineering, State University of New York at Buffalo, Buffalo, NY

Presenters

Glenn Langenburg, Forensic Scientist, Latent Prints, Minnesota Bureau of Criminal Apprehension, St. Paul, MN

Itiel Dror, Cognitive Neuroscientist, Department of Psychology, University College London, United Kingdom

The Railway Killer: A Story of Fear, Dedication, Forensics, and Survival

12:30pm - 2:30pm

Luncheon Presentation

Grand Ballroom

Angel Maturino Reséndiz killed as many as 24 people over a 12-year period before he was arrested in July 1999. Most of the murders occurred in close proximity to railroad tracks, which he used to travel throughout the United States.

Several of the crimes occurred in Texas. The recovery and identification of latent fingerprint evidence by Debbie Benningfield from the Houston Police Department provided the key link to allow authorities to know who they were looking for and eventually track him down.

There is only one known survivor of an attack by Reséndiz. Holly Dunn Pendleton and her boyfriend, Christopher Mair, were attacked as they walked along the railroad tracks in Lexington, Kentucky. Christopher was bludgeoned to death, and Holly was raped, beaten and stabbed. Holly currently helps other victims of rape, sexual assault, and

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crime. She also founded "Holly's House" in her native Evansville, Indiana to benefit those victims of rape, sexual assault, and crime.

While the story has been presented in many ways this will be the first time that Debbie Benningfield and Holly Dunn will be appearing together to provide their compelling first hand accounts.

Moderator

Leonard Butt, Forensic Scientist, Forensic Sciences Division, Maryland State Police, Pikesville, MD

Presenters

Debbie Benningfield, Consultant, DLB Forensics, Tomball, TX

Holly Dunn Pendelton, Motivational Speaker/Victims Advocate, Holly K. Dunn, LLC, Evansville, IN

Poster Sessions

2:30pm - 5:00pm

Island Ballroom

An overwhelming response, both from the United States and abroad, was received as a result of the Impression and Pattern Evidence Symposium's "Call for Papers" issued earlier this year. The poster session provides an opportunity for researchers and practitioners to present their work in a public forum.

Deciphering the Symbols and Codes on Footwear Labels

Rhonda Banks, Forensic Scientist, Forensic Services Division, Oregon State Police, Clackamas, OR

The Significance of Associating Air Force I Shoes with Partial Footwear Impressions Based on Physical Size

Elyse Bekiempis, Crime Laboratory Analyst, Impression Evidence, Florida Department of Law Enforcement, Jacksonville, FL

Vehicle Stance Databases

David P. Bicigo, Forensic Science Manager, Forensic Science Division, Michigan State Police, Bridgeport, MI

Use of Polarized Light for Visualization and Documentation of Blood Patterns on Dark Surfaces

Rebecca E. Bucht, Graduate Center at CUNY, Associate Consultant, Cognitive Consultants International, New York, NY

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Shape Measurement Tools in Impression Evidence: Application to Bitemarks

Mary A. Bush, Assistant Professor, SUNY at Buffalo, NY

New Firearms Forensic Technology Based on Infrared Technology

Stanley Derr, President, SED Technology LLC, Fairfax, VA

A Study of the Variability in Footwear Impression Comparison Conclusions

Kate Duffy, Graduate, Centre for Forensic Science, University of Strathclyde, Bolton, Ontario, Canada

Dry Casting: A Method for Casting Snow Impressions

Shelli Friesen, Criminalist, Boulder Police Department, Boulder, CO

Determining the Significance of Outsole Wear Characteristics During the Forensic Examination of Footwear Impression Evidence

Lesley Hammer, Forensic Scientist, Hammer Forensics LLC, Anchorage, AK

Estimation of Likelihood Ratios for Forensic Handwriting Analysis

Amanda Hepler, Postdoctoral Fellow, Document Forensics Laboratory, George Mason University, Fairfax, VA

Toward a Quantitative Basis for Efficiency of Friction Ridge Pattern Detail

Michael Hsiao, Professor, Electrical and Computer Engineering, Virginia Tech, Blacksburg, VA

The Significance of Die-Cut Footwear Class Characteristics

Alan Kainuma, Criminalist, Scientific Investigation Section/Questioned Documents Unit, Honolulu Police Department, Honolulu, HI

Using Gentian Violet To Enhance Dust Impressions Recovered From Porous And Non-Porous Surfaces

Jan Seaman Kelly, Forensic Scientist II, Crime Laboratory, Las Vegas Metropolitan Police Department, Las Vegas, NV

The ARK (Admissibility Resource Kit)

Greg Klees, Firearms and Toolmark Examiner, National Laboratory Center, Bureau of Alcohol, Tobacco, Firearms and Explosives, Ammendale, MD

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The Case of the Counterfeit Nike

Tanya C. Lee, Forensic Specialist IV, Crime Laboratory, Kansas City, MO Police Department, Kansas City, MO

Barefoot Morphology

Shelly Massey, Forensic Identification Specialist, Campbell River Forensic Identification Section, Royal Canadian Mounted Police, Campbell River, British Columbia, Canada

What Detail?

Neal Morin, Special Agent, Firearm and Toolmark, North Carolina State Bureau of Investigation, Raleigh, NC

Pattern and Impression Evidence on the Human Body - Case Reports

Suzanne L. Noffsinger, Forensic Scientist, Trace Evidence, Miami Valley Regional Crime Laboratory, Dayton, OH

The Significance of Class Associations in Footwear Comparisons

Sandy Parent, Forensic Scientist, Crime Laboratory, Texas Department of Public Safety, Austin, TX

Quantifying the Dermatoglyphic Growth Patterns in Children Through Adolescence

Leonard C. Pratt, Vice President, Field Operations, Ultra-Scan Corporation, Amherst, NY

Microscopic Analysis of Sharp Force Trauma in Bone and Cartilage

Chris Rainwater, Forensic Anthropologist, Office of Chief Medical Examiner, New York, NY

Quantifying the Effects of Database Size and Sample Quality on Measures of Individualization Validity and Accuracy in Forensics

Christopher P. Saunders, Assistant Professor, Applied Information Technology, George Mason University, Fairfax, VA

A New Method for Casting Three Dimensional Shoeprints and Tire Marks

Yaron Shor, Forensic Officer, Division of Identification and Forensic Science, Israel Police, Jerusalem, Israel

The Significance of Documenting Shoes for Elimination Purposes at a Major Scene

Christine Snyder, Crime Scene Analyst, Seminole County Sheriff's Office, Sanford, FL

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Research and Development of Magneto-Rheological Fluids

Eric Paul Sorrentino, Adjunct Professor, Forensic Science Department, Pace University, New York, NY

The Statistical Evaluation of a Torn Duct Tape Physical Matches

Frederic A. Tulleners, Director, Forensic Science Graduate Program, University of California, Davis, CA

A New Approach Using Graph-based Recognition for Latent Fingerprint Identification

Mark A. Walch, President, The Gannon Technologies Group, McLean, VA

Handwriting Comparison Using ESDA Lifts

Dwayne Wisbey, Forensic Document Examiner and Deputy Sheriff, Onondaga County Sheriff's Office, Manlius, NY

Innovative Techniques for Collecting Snow Impression Evidence

James Wolfe, Adjunct Faculty, Justice Center, University of Alaska - Anchorage, Anchorage, AK

Blood Reagents on Dark Surfaces

Kelly Woodward, Forensic Scientist, Latent Print Section, Kansas Bureau of Investigation, Topeka, KS

Development of Synthetically Generated LEA Signatures to Generalize Probability of False Positive Identification Estimates

Guangfan Zhang, Lead Research Scientist, Signal Processing, Intelligent Automation, Inc., Rockville, MD

Networking Opportunity

6:00pm - 8:00pm

Poolside Lawn

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Wednesday, August 4, 2010

Registration

7:30am - 5:00pm

Lobby 2

Continental Breakfast and Poster Session

7:30am - 8:30am

Island Ballroom

Informal Fallacies in Examiner Testimony: The Search for Black Swans in Forensics

8:30am - 10:00am

General Session

Grand Ballroom

Following the release of the NAS report, forensic examiners have faced increased scrutiny regarding how strongly their court testimony is grounded in science. How can the probative value of a conclusion be explained without falling victim to exaggeration or understatement? In this session, the fundamentals of examiner testimony as related to the strength of evidence and level of certainty will be presented from a legal and forensic practitioner perspective. This will be followed by an open discussion among panelists and symposium attendees on selected questions received at the networking reception the previous night.

Moderator

George W. Clarke, Judge of Superior Court, San Diego Superior Court, San Diego, CA

Presenters

Melissa R. Gische, Physical Scientist/Forensic Examiner, Latent Print Operations Unit, FBI Laboratory, Quantico, VA

David Kaye, Professor, School of Law and Forensic Science Program, The Pennsylvania State University, University Park, PA

Discussants

Bruce Budowle, Executive Director and Professor, Forensic and Investigative Genetics, University of North Texas Health Science Center, Ft. Worth, TX

Greg Klees, Firearms and Toolmark Examiner, National Laboratory Center, Bureau of Alcohol, Tobacco, Firearms and Explosives, Ammendale, MD

Jennifer Mnookin, Professor, Law Department, University of California, Los Angeles, CA

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John E. Murdock, Firearms-Toolmark Examiner, Forensic Services Division, Office of the Sheriff-Coroner, Contra-Costa County, Martinez, CA

10:00am - 10:15am

Break

Paper Presentations

10:15am - 12:15pm

General Session

Grand Ballroom

Speakers will present on their research and the direct impact it has on the field of impression and pattern evidence.

Moderator

Ryan S. Tomcik, Consultant, Booz Allen Hamilton, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC

Presenters

Cognitive Profiling of Latent Fingerprint Examiners

Rebecca E. Bucht, Graduate Center at CUNY, Associate Consultant, Cognitive Consultants International, New York, NY

An Empirical Study to Evaluate the Repeatability and Uniqueness of Striations/Impressions Imparted on Consecutively Manufactures Miami/EBIS Gun Barrels

Thomas Fadul, Laboratory Manager, Crime Laboratory, Miami Dade Police Department, Miami, FL

Statistical Approach for an Efficient Use of Footwear Marks in Crime Analysis

Alexandre Girod, Chef de l'Identite Judiciaire de la Police Cantonale Vaudoise, Police Forensic Department, Police Cantonale Vaudoise, Lausanne, Switzerland

Computerized System for Aiding Expert Evaluation of the Degree of Certainty and Error Rate in Physical Match and 2D Shoeprints

Yaron Shor, Forensic Officer, Division of Identification and Forensic Science, Israel Police, Jerusalem, Israel

12:15pm - 1:30pm

Lunch on Your Own

Impression & Pattern Evidence Symposium



Call for Paper Concurrent Breakout Sessions

1:30pm - 3:00pm

Breakouts

Locations listed below

Group A: Fingerprint Research

Island Ballroom

Current fingerprint research on computational methods for assessing the uniqueness of fingerprints, the discriminating power of pore configurations combined with additional ridge features, and insight into fingerprint examiner performance and the exclusion process.

Moderator and Presenter

Probability Calculation for Latent Fingerprints

Sargur Srihari, Professor, Computer Science and Engineering, State University of New York at Buffalo, Buffalo, NY

Presenters

Integration of the Pore Characteristics in the Evaluation of Fingerprint Evidence

Alexandre Anthonioz, Scientific Collaborator, Institut de Police Scientifique, University of Lausanne, Switzerland

The Black Box Latent Print Examiner Studies

R. Austin Hicklin, Fellow, Noblis, Falls Church, VA

Group B: Firearms and Toolmarks

Beach/Gulf

Current state of the art research, requirements, recommendations and practices of forensic firearm and toolmark examination.

Moderator

Nicholas D.K. Petraco, Associate Professor of Forensic Science, John Jay College of Criminal Justice, New York, NY

Presenters

Quantification of Toolmarks

Scott Chumbley, Professor, Materials Science and Engineering, Iowa State University/Ames Laboratory, Ames, IA

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Systematic Requirements/Recommendations for the Forensic Firearm and Toolmark Laboratory

Douglas S. Lancon, Forensic Scientist, Physical Evidence Section, Acadiana Criminalistics Laboratory, New Iberia, LA

Application of 3D Measurements for the Assessment of the Evidential Strength of Marks on Cartridge Cases

Fabiano Riva, Doctoral Student, Institute of Forensic Science, Universite de Lausanne, Switzerland

Group C: Shoe Prints/Tire Tracks – Technical Presentations

Palm/Bay

Nike Air Force I shoes are a very prevalent shoe in forensic laboratory casework. This panel will present the manufacturing processes, labeling information, production numbers and the presence of counterfeits along with casework comparisons, all of which will help address the significance of this common shoe.

Also presented will be a study regarding the random nature of individual characteristics and a comprehensive view on some new methods for lifting 2D shoe prints.

Moderator

Sandy Parent, Forensic Scientist, Crime Laboratory, Texas Department of Public Safety, Austin, TX

Presenters

Evaluation of the Random Nature of Acquired Marks on Footwear Outsoles

Christopher Hamburg, Forensic Scientist, Forensic Services Division, Oregon State Police, Clackamas, OR

Attaching Significance to Questioned Footwear Impressions Characteristic of the Nike Air Force I

Cheryl Lozen, Forensic Scientist, Forensic Science Division - Trace Unit, Michigan State Police - Northville Laboratory, Northville, MI

Using the Manufacturer's Information of the Nike Air Force I Shoe to Assist in the Examination Process

Michael B. Smith, Forensic Examiner, FBI Laboratory, Quantico, VA

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Comprehensive View on Some New Methods for Lifting 2D Shoe Prints

Sarena Wiesner, Scientific Officer, Toolmarks and Materials Lab, Division of Identification and Forensic Science, Israel Police, Jerusalem, Israel

3:00pm - 3:30pm

Break

Call for Paper Concurrent Breakout Sessions

3:30pm - 5:00pm

Breakouts

Locations listed below

Group A: Probability

Island Ballroom

Moderator

James Krylo, Forensic Scientist, Forensic Laboratory, Firearm and Toolmark Unit, Las Vegas Metropolitan Police Department, Las Vegas, NV

Presenters

The Use of Probabilistic Networks in the Area of Fingerprints

Christophe Champod, Professor, Institut de Police Scientifique, University of Lausanne, Switzerland

Addressing the National Academy of Sciences' Challenge: A Method for Statistical Pattern Comparison of Striated Tool Marks

Nicholas D.K. Petraco, Associate Professor of Forensic Science, John Jay College of Criminal Justice, New York, NY

A Probabilistic Measure for Signature Verification Based on Bayesian Learning

Sargur Srihari, Professor, Computer Science and Engineering, State University of New York at Buffalo, NY

Group B: Footwear Impressions

Grand Ballroom

Moderator

William J. Bodziak, Owner, Bodziak Forensics, Palm Coast, FL

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Presenters

The Use of Databases in the Evaluation of Footwear Evidence

David Baldwin, Principal Scientist, Marks and Traces, Volume Crime, Forensic Science Service, London, United Kingdom

The Emperors New Impression: On the Need to Better Document Laboratory Results Based on Impression Evidence

Vincent J. Desiderio, Forensic Scientist, Trace Evidence Section, Office of Forensic Sciences, New Jersey State Police, Hamilton, NJ

Using Physical and Chemical Techniques in Sequence to Maximize the Recovery Footwear Marks

Michael E. Gorn, Senior Criminalist, Boston Police Department, Boston, MA

Unqualified Testimony and Conclusions Regarding Footwear Impression Evidence by a Tracker: A Case Study

Julie A. Lawry, Senior Attorney, Associated Counsel for the Accused, Public Defender Agency, Seattle, WA

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Thursday, August 5, 2010

Registration

7:30am - 3:30pm

Lobby 2

Continental Breakfast

7:30am - 8:00am

Lobby 2

Admissibility and Expert Testimony: Case in Point

8:00am - 10:00am

General Session

Grand Ballroom

This presentation will utilize a pattern evidence case to help forensic scientists more fully appreciate the application of *Daubert* in pattern evidence cases. Case lab reports will be provided. Prosecution admissibility brief will be provided electronically so that attendees may use it in their own cases.

The first part of the session will consist of legal arguments concerning the need for live testimony in a hearing, and, if so, the scope of the issues to be addressed during the live testimony.

The second part of the session will consist of the direct exam and cross exam of the prosecution expert during the *Daubert* hearing. Time for questions afterward will provide a unique opportunity for forensic scientists to appreciate the bases for both the prosecution and defense strategies in the hearing. This will also afford an opportunity to appreciate how the new NAS report may impact litigation.

Moderator

Rockne P. Harmon, Consultant, Alameda, CA

Presenters

Martha Bashford, Assistant District Attorney, New York County District Attorney's Office, New York, NY

George W. Clarke, Judge of Superior Court, San Diego Superior Court, San Diego, CA

Susan Gross, Forensic Science Supervisor, Chemistry Section, Minnesota Bureau of Criminal Apprehension, St. Paul, MN

10:00am - 10:30am

Break

Impression & Pattern Evidence Symposium



Perspectives on Error Rate Reporting in Forensic Casework and Testimony

10:30am - 12:00pm

General Session

Grand Ballroom

The United States Supreme Court handed down its opinion in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* in 1993, which provides guidance on how a judge should determine the admissibility of an expert witnesses' testimony. The court specifically listed five (5) factors that should be considered when establishing whether a scientific methodology is valid. One of the factors that *Daubert* suggests for evaluating scientific validity is the "known or potential rate of error". Forensic scientists, legal experts, and academicians have engaged in wide-ranging debates on the feasibility and accuracy of reporting error rates in scientific disciplines that are based on the comparison of pattern and impression evidence. Each of the three panel members will provide differing views on this topic.

Moderator

Gerry LaPorte, Forensic Policy Program Manager, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC

Presenters

Bruce Budowle, Executive Director and Professor, Forensic and Investigative Genetics, University of North Texas Health Science Center, Ft. Worth, TX

D. Michael Risinger, John J. Gibbons Professor of Law, Seton Hall University School of Law, Newark, NJ

Scott A. Shappell, Professor, Industrial Engineering, Clemson University, Clemson, SC

Jurors and Expert Testimony: Myths and Realities

12:00pm - 1:30pm

Luncheon

Grand Ballroom

Now that the morning sessions have addressed the admissibility of expert testimony, this presentation explores how jurors understand that evidence and use it in their decision-making. Drawing on research about jury decision-making, as well as from the fields of cognitive psychology, communications, and media studies, this presentation will consider the following questions: How do jurors interpret the absence of forensic evidence? When are jurors most likely to disregard expert testimony? How does the language used by counsel and witnesses enhance or impede juror understanding?

Moderator

Jules Epstein, Associate Professor, Widener University School of Law, Wilmington, DE

Presenter

Kimberlianne Podlas, Associate Professor, University of North Carolina, Greensboro, NC

Impression & Pattern Evidence Symposium



Embarking on the “Path Forward”

1:30pm - 3:00pm

General Session

Grand Ballroom

The White House Office of Science and Technology Policy has coordinated the establishment of the Subcommittee on Forensic Science. In response to the NAS report, *Strengthening Forensic Science in the United States: A Path Forward*, the Subcommittee is charged with developing recommendations for a nationwide effort to improve forensic science at the federal, state, and local levels. Recognizing the impact that its work will have on the forensic science and criminal justice community, the panel session will inform participants of activities associated with the Subcommittee and its five Interagency Working Groups. Importantly, the session will also be an opportunity for practitioners to ask questions and provide feedback to Subcommittee leadership on issues of critical importance to state and local practitioners.

Moderator

Robin W. Jones, Executive Secretary, Subcommittee on Forensic Science, Office of the Director, Bureau of Alcohol, Tobacco, Firearms and Explosives, Washington, DC

Presenters

Greg Klees, Firearms and Toolmark Examiner, National Laboratory Center, Bureau of Alcohol, Tobacco, Firearms and Explosives, Ammendale, MD

Gerry LaPorte, Forensic Policy Program Manager, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC

Kenneth E. Melson, Deputy Director, Bureau of Alcohol, Tobacco, Firearms and Explosives, Washington, DC

Cary T. Oien, Unit Chief, Firearms/Toolmarks Unit, FBI Laboratory, Quantico, VA

Mark D. Stolorow, Director, Office of Law Enforcement Standards, Electronics and Electrical Engineering Lab, National Institute of Standards and Technology, Gaithersburg, MD

Kathryn Suchma, Physical Scientist/Forensic Examiner, FBI Laboratory, Quantico, VA

Closing Remarks

3:00pm - 3:30pm

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Joseph P. Bono, Adjunct Instructor, Forensic and Investigative Sciences Program, Indiana University-Purdue University Indianapolis, President, American Academy of Forensic Sciences, Indianapolis, IN

Impression & Pattern Evidence Symposium



Joe Polski, Chief Operations Officer, International Association for Identification, Mendota Heights, MN

Michael G. Sheppo, Director, Office of Investigative and Forensic Sciences, National Institute of Justice, U.S. Department of Justice, Washington, DC