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**Friction Ridge Resources – Sources of  
Information for the Friction Ridge Examiner**

# Disclaimer

**Any opinions or views expressed in this lecture are my own and not indicative of the Santa Clara County Sheriff's Office**

# Concept

- **General information for the latent print examiner**
- **Challenging occupation**
- **Highly critiqued**
- **Demand a high level of performance**  
– self induced?
- **Knowledge is power**
- **Testimony is teaching**
- **Practice, practice, practice**

# Networking and Knowledge Sharing

- Shouldn't feel as though we are operating in a silo – even for one person shops
- Information is out there and available
- How do we get it ???

# Friction Ridge Resources

- International Association for Identification
- California State Division
- Conferences and Seminars
- Training Providers and External Courses
- Internal Courses
- Referenced Textbooks
- OSAC – Friction Ridge Sub-committee
  - Legacy SWGFAST baseline documents

# Friction Ridge Resources

- ASB - AAIFS Standards Board (SDO)
- OSAC Registry
- ISO Standards
- Websites
- Journals
- Webinars
- Community Forums
- Podcasts
- Local Study Groups
- Email Lists

# International Association for Identification

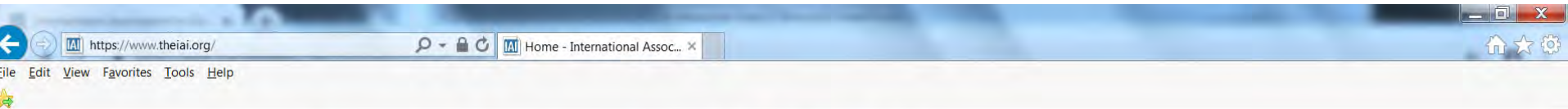
- Clearly everyone here is aware of the benefits of IAI membership
- Oldest and largest forensic association in the world
- Discounted attendance at Annual Conference
- Massive array of latest training available for all forensic disciplines
- Network of contacts and IAI members
- Aspiration of Certification in your field

# International Association for Identification

- Perhaps the biggest benefit is the receipt of the Journal of Forensic Identification (JFI)
- Quarterly peer-reviewed scientific journal
  - Example: Review of Several False Positive Error Rate Estimates Based on the 2014 Miami-Dade PD Study
    - Ausdemore, Hendricks, Neumann
- JFI Supplemental Report and Article Summary
  - up-to-date news, training opportunities and article summaries
- Website ([www.theiai.org](http://www.theiai.org)) – Member Area
- Searchable back catalog of JFI and Identification News



# www.theiai.org



## Welcome to the International Association for Identification



Benefits of Becoming an IAI Member

We are the oldest and largest forensic association in the world. This professional forensic association represents a diverse, knowledgeable and experienced membership that are assembled to educate, share, critique and publish methods, techniques and research in the physical forensic science disciplines.

## Updates & News for Members

### Presidential



2018 - 2019  
IAI President  
Lisa Hudson

[Opioid Crisis Response Act of 2018](#)

[More Presidential Updates ...](#)

[View All News](#)

### OSAC

- [OSAC Newsletter](#)
- [Organization of Scientific Area Committees for Forensic Science \(OSAC\)](#)
- [OSAC Standards Bulletin](#)

### Conference

[The 104th IAI International Educational Conference](#) will be held August 11-17, 2019 at the Peppermill Resort, Reno, Nevada. The conference program is now available and registration is open

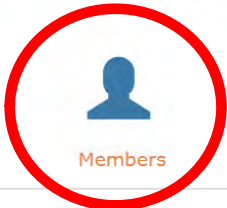
The application period for lecture and workshop presentation proposals is now closed.

# www.theiai.org



[Home](#)

## Member Menu



Members



Resources



Multimedia

## IAI Documents

- [IAI Mission Statement](#)
- [IAI Operations Manual \(updated 08.03.18\)](#)
- [IAI Resolutions](#)

## IAI Forms

- [Distinguished Member Application](#)
- [Expense Report](#)
- [Waiver and Release of Liability](#)

## Publications

- [Identification News](#)
- [Journal of Forensic Identification](#)

Changes made to Member Info does not feed over to the Certification System

NOTE: If you are Certified by the IAI you must go to the [Certification Website](#) to update/change your information there also. Access the [Certification Website](#).

# Identification News



**John Paul Jones II**

*NIST Liaison  
to the IAI*

**NIST**  
National Institute of  
Standards and Technology  
U.S. Department of Commerce

## OSAC Implementation is Coming - Are You a "Self Adopter?"

As the National Institute of Standards and Technology (NIST) liaison to the IAI, I have the honor of sharing some of the latest activities at NIST that may be of interest to my fellow IAI members. For this newsletter, I would like to share an update on the NIST administered Organization of Scientific Area Committees for Forensic Science's (OSAC) implementation strategy for 2019 and beyond.

The OSAC started in 2014 and we knew from day one that a two-fold approach was required for success – building standards and implementation of those standards. The OSAC objective is to create a sustainable organizational infrastructure dedicated to identifying and fostering the development of technically sound, consensus-based documentary standards and guidelines for widespread adoption throughout the forensic science community. During 2019, OSAC will focus efforts on encouraging laboratories to "self-adopt" standards listed on the OSAC Registry. At the time of this article, there are 15 standards on the OSAC Registry and most of them do not have an impact on the disciplines covered by the International Association of Identification (IAI). OSAC has 200 standards in development both within the organization and at Standards Developing Organizations (SDOs). The work products at the SDOs are what your laboratories should be watching now as they will be the future OSAC registry standards.

Did you know OSAC introduced a standard entitled "Standard Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development

training, and continuous professional development<sup>1</sup>. This published standard will now start the OSAC review process for placement on the OSAC Registry. The OSAC Crime Scene Investigation (CSI) Subcommittee has developed a draft standard that builds from ASTM E2917-19 specific for the field of Crime Scene Investigation training and development and this future standard will impact many of you. The draft CSI document is being introduced to ASTM Subcommittee E30.11 on Interdisciplinary Forensic Science Standards and will follow the ASTM consensus development process for eventual publication as an ASTM standard. If you would like to participate in the ASTM consensus process, please consider joining ASTM and contribute to the document's development.

### Why does it take so long?

The concept of OSAC launched in February 2014 and our first meetings were held in January 2015. This means we have been operating for 4 years. When OSAC decided that one of the requirements for listing on the OSAC Registry was that the standard followed a "reasonable standards development process" and gave preference to documents developed in SDOs, that pointed the 25 OSAC subcommittees to begin to draft documents in their subcommittees and introduce them to SDOs for formal development.

This adds time but it is very important. When standards are published by recognized SDOs, users know they were developed in an open and transparent manner, followed "due process" and general consensus was achieved regarding the

### Forensic Science Industry Stakeholders

- 409 Federal/State/Local Crime Laboratories
  - 88% accredited (as of December 31, 2014)
  - 14,300 full time personnel
- 18,000+ Law Enforcement Agencies
- 2,400+ Medical Examiner/Coroners Offices
- 2,300+ Prosecutor Offices
- 3,000+ Public Defenders Offices

# California State Division

- Once again an opportunity for up-to-date information and training available in the local area
- Website ([www.csdiai.org](http://www.csdiai.org)) – Member Area
- Secretary-Treasurer emails out the California Identification Digest
- Now Christina Sams (csdiaisectreas@gmail.com)
- Access all previous bimonthly digests
- Established the “Google Group”
- <https://groups.google.com/group/csdiai-current-members>

# California State Division



LOGOUT

SEARCH ...



## SAVE THE DATE



We would love to see you next year! It is not too early to apply for The William A. Snare Grant.

Check out our Scholarship page for details.

## MEMBER MENU

NOMINATION ISSUE

JULY- AUGUST 2019 DIGEST (PDF)

COMMEMORATIVE BOOK

GEORGE PLETTS MERITORIOUS AWARD

EXECUTIVE COMMITTEE P&P'S (PDF)

COMMITTEE REPORTS (PDF)

## MID-YEAR EXECUTIVE COMMITTEE MEETING

All CSDIAI members are encouraged to attend the 2019 CSDIAI Mid-Year Executive Committee Meeting. If you are thinking of running for a position on the CSDIAI Executive Committee, or if you want to see what the CSDIAI Executive Committee does at the meeting, please join us.

**Date/Time:** Saturday September 21<sup>st</sup>, 2019 at 9:00 am, Executive Committee Meeting, with lunch approximately at noon.

**Location:** Harris Ranch Inn: 24505 W. Dorris Avenue, Coalinga, CA 93210 – Room: Garden Ballroom

**Lodging:** Harris Ranch Inn: 24505 W. Dorris Avenue, Coalinga, CA 93210

**Reservations:** You are responsible for your hotel reservations. You must call (559) 935-0717 and identify yourself as a member of CSDIAI or use our group code: 2T83DA. **No**

## MEMBERSHIP RENEWAL

Our membership renewal process has changed. Please take a moment to read through these two articles.

You can find the new Membership article here and the FAQs here.

Thank you!

## BYLAWS & CONSTITUTION

We are in the process of updating our

# California State Division

## 2019 – 2020 Executive Committee

**PRESIDENT**  
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SOUTH - Amy Rodriguez  
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## President's Message

The Executive Board would like to thank everyone who made the Burlingame Conference a success. The conference was a great success because of our attendees, speakers, vendors and hotel staff. We have received notes and comments from many people saying how much they appreciated the learning opportunities at the conference. In addition, your Executive Board is excited about planning the next training seminar in Palm Springs, May 18-22, 2020. Our main goal is to provide the best training opportunity, experience and learning environment each year.

In addition to planning a training seminar, our agenda is to attract new members and educate our current membership with various forensic disciplines. As President, I have begun the process of growing our membership by speaking about our program at Southern California colleges/ universities and attending forensic training lectures (SCAFO). I look forward to attending additional colleges, police departments and forensic trainings throughout the year.

If there are any specific Association-related questions, please do not hesitate to contact the appropriate members of the Executive Board.

Thanks!



# Conferences and Seminars

[Home](#) / [Conference](#)

## Annual IAI International Forensic Educational Conference

[2019 Conference](#) will be August 11 - 17, 2019 at the [Peppermill Resort](#), Reno, Nevada

2020 Conference will be August 9 - 15, 2020 at the [Rosen Shingle Creek Resort](#), Orlando, Florida

2021 Conference will be August 1 - 7, 2021 at the [Gaylord Opryland Resort](#), Nashville, Tennessee

2022 Conference will be July 31 - August 6, 2022 at the [CenturyLink Convention Center](#), Omaha, Nebraska

2023 Conference will be August 20 - 26, 2023 at the [Gaylord National Resort](#), National Harbor, Maryland

2024 Conference will be August 11 - 17, 2024 at the [Peppermill Resort](#), Reno, Nevada

Education and Professional Development are core aspects of the IAI mission. To meet this mission the IAI holds an annual educational conference that offers a week of high quality, cutting-edge education and hands on training in the fields of forensic physical evidence and crime scene investigation.

The IAI Conference is the largest in the world for Forensic and Crime Scene Professionals and offers a full week packed with scientific, technical and operational lectures, as well as hands-on workshops focused on a wide variety of topics. Topics include Crime Scene Investigation and Processing, Photography, the collection and examination of Latent Print, Footwear and Tire Track, and Bloodstain Pattern Evidence, Biometrics, and many other types of impression and identification evidence disciplines.

The IAI Conference is a cost-effective and time-efficient investment in your career as well as your standing in the profession. This is your opportunity to stay in tune with professional standards, certification, and the latest issues related to forensic science and crime scene evidence.

### Further Information

General Conference  
Information:

**Candace "Candy" Murray**  
Conference Planner

**(407) 810-6112**

[Send email to Candy Murray](#)

Conference Registration  
Information:

**Roy Reed**  
Conference Registrar

**(832) 696-9448**

[Send email to Roy Reed](#)

Educational Program  
(Lecture/Workshop/Poster):

**Lesley Hammer**  
Education Coordinator

**(907) 242-0229**

[Send email to Lesley Hammer](#)

Keeping the Vision in 2020



**Speakers Chair – Marrkel SMITH**  
**Msmith@fremont.gov**

[www.csdiai.org](http://www.csdiai.org)

**MAY 18-22**  
**2020**



**Save**  
**THE**  
**Date**

**TRAINING CONFERENCE**

LOCATED AT:

**Omni Rancho Las Palmas**  
**Resort & Spa**



**GREATER**  
**palm springs**  
find your meeting oasis.



# SCAFO Conference



scafo.org

Webmail



Southern  
California  
Association of  
Fingerprint Officers

28th Annual Conference

01 3 02  
Month Weeks Days

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The Print

Membership Renewal

28th Annual Conference

Dell Freeman Award

## 28TH ANNUAL CONFERENCE

OCTOBER 2-4, 2019  
SAN DIEGO, CA

DOUBLETREE MISSION VALLEY

Group Code: AFO  
7450 Hazard Center Drive  
Reserve at 619.297.5466



# Training Providers and External Courses

- Fantastic Support from External Training Providers out there
- Attend a course or host a course and allow other examiners in your area to attend quality training
- TRITECH (Official Training Partner of IAI)
  - <https://www.tritechtraining.com/>
- Ron Smith and Associates
- Evolve Forensics
- Other Forensic Providers
  - CK Hull and Associates, Forensic Pieces, Delta Forensics ...

# Internal Courses

- Ideally you have some senior examiners at your agency that can impart the knowledge that they have gained over the years through their study, training and experience
- Quality Manager / Training Officer
- Established training program
- Mentored, phase-based progression towards certification
- Competency Testing
- Individual training folder per examiner
- Annual Proficiency Testing

# IAI CLPE Program and Referenced Textbooks

- Head to the IAI website ([www.theiai.org](http://www.theiai.org))
- Requirements
  - Educational, Technical Training, Experience
- Written Examination questions (3x sources)
  - **The Fingerprint Sourcebook**
  - **Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology**
  - **Advances in Fingerprint Technology, Third Edition**

# IAI CLPE Program and Referenced Textbooks

IAI Latent Reading - International A...



← → ↻ 🔍 https://theiai.org/latent\_reading.php



The Fingerprint Sourcebook (U.S. Dept of Justice, National Institute of Justice)  
by I.A.I. Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST) et al Eric H. Holder, Laurie O. Robinson, John H. Laub

Product Details  
PDF: 287 pages  
Publisher: National Institute of Justice (March 2011)  
Language: English  
NCJ 225320

Downloadable PDF on NIJ Website at: <http://www.nij.gov/pubs-sum/225320.htm>



Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology  
(Crc Series in Practical Aspects of Criminal and Forensic Investigations) (Hardcover)  
by David R. Ashbaugh

Product Details  
Hardcover: 248 pages  
Publisher: CRC (October 27, 1999)  
Language: English  
ISBN-10: 0849370078  
ISBN-13: 978-0849370076



Advances in Fingerprint Technology, Third Edition (Forensic and Police Science Series) (Hardcover)  
by Robert Ramotowski

Product Details  
Hardcover: 528 pages  
Publisher: CRC Press; 3rd edition (2013)  
Language: English  
ISBN-10: 1420088343  
ISBN-13: 9781420088342

# OSAC Friction Ridge Subcommittee

- The Friction Ridge Subcommittee will focus on standards and guidelines related to the forensic examination of friction ridge detail from the hands and feet.
- Clearly evident that our industry is seeking consensus based standardization (STD's, BPR's, TR released through SDO)
- Convoluted process – can feel like a quagmire
- OSAC FRS Website is a **fantastic resource** for the current information in this area
- <https://www.nist.gov/topics/forensic-science/friction-ridge-subcommittee>

# OSAC FRS Website

## FORENSIC SCIENCE

### Friction Ridge Subcommittee

## Friction Ridge Subcommittee



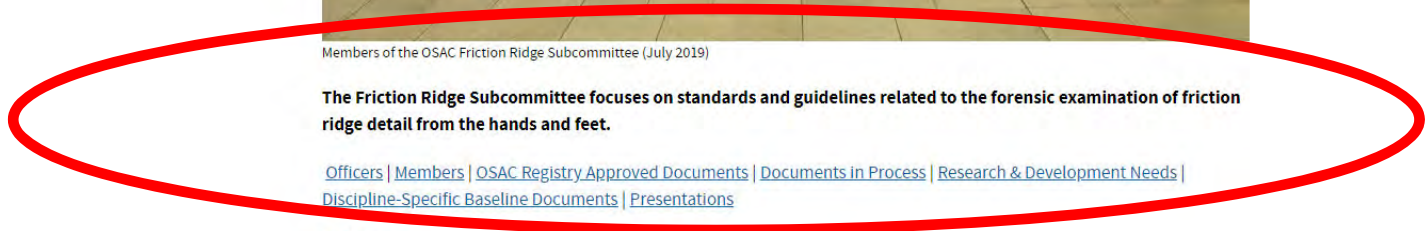
Members of the OSAC Friction Ridge Subcommittee (July 2019)

The Friction Ridge Subcommittee focuses on standards and guidelines related to the forensic examination of friction ridge detail from the hands and feet.

[Officers](#) | [Members](#) | [OSAC Registry Approved Documents](#) | [Documents in Process](#) | [Research & Development Needs](#) | [Discipline-Specific Baseline Documents](#) | [Presentations](#)

### Officers

Share  
f  
in  
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# Discipline Specific Baseline Documents

[OSAC Friction Ridge Subcommittee's Response to the President's Council of Advisors on Science and Technology's \(PCAST\) Request for Additional References - Submitted December 14, 2016](#)

[OSAC Friction Ridge Subcommittee's Response to the President's Council of Advisors on Science and Technology's \(PCAST\) Request for Information – Submitted December 2015](#)

[SWGFAST Position Statement on the Role of AFIS Ranks and Scores and the ACE-V Process](#)

[SWGFAST Guideline for the Articulation of the Decision-Making Process for the Individualization in Friction Ridge Examination \(Latent/Tenprint\)](#)

[SWGFAST Standard Friction Ridge Automation Training \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Application of Blind Verification of Friction Ridge Examinations \(Latent/Tenprint\)](#)

[SWGFAST Recommendations for Competency Testing of Noncertified Latent Print Examiners \(Latent\) Position Statement](#)

[SWGFAST Standard for Consultation \(Latent/Tenprint\)](#)

[SWGFAST Standards for Examining Friction Ridge Impressions and Resulting Conclusions \(Latent/Tenprint\)](#)

[SWGFAST Standards for Examining Friction Ridge Impressions and Resulting Conclusions \(Latent/Tenprint\) Draft for Comment](#)

[SWGFAST A Model Policy for Friction Ridge Examiner Professional Conduct \(Latent/Tenprint\)](#)

[SWGFAST Standards for Minimum Qualifications and Training to Competency for Friction Ridge Examiner Trainees \(Latent/Tenprint\)](#)

[SWGFAST Standard for a Quality Assurance Program in Friction Ridge Examinations \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Definition and Measurement of Rates of Errors and Non-Consensus Decisions in Friction Ridge](#)



# Discipline Specific Baseline Documents

[SWGFAST Standard for a Quality Assurance Program in Friction Ridge Examinations \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Definition and Measurement of Rates of Errors and Non-Consensus Decisions in Friction Ridge Examination \(Latent/Tenprint\)](#)

[SWGFAST Standard for Simultaneous Impression Examination \(Latent\)](#)

[SWGFAST Standard for Friction Ridge Impression Digital Imaging \(Latent/Tenprint\)](#)

[SWGFAST Standard for Reporting Friction Ridge Examinations \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Documentation of Analysis, Comparison, Evaluation, and Verification \(ACE-V\) \(Latent\)](#)

[SWGFAST Standard for the Documentation of Analysis, Comparison, Evaluation, and Verification \(ACE-V\) in Tenprint Operations \(Tenprint\)](#)

[SWGFAST Standard for Friction Ridge Comparison Proficiency Testing Program \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Review of Testimony of Friction Ridge Examiners \(Latent/Tenprint\)](#)

[SWGFAST Standard Terminology of Friction Ridge Examination \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Technical Review of Friction Ridge Examinations \(Latent/Tenprint\)](#)

[SWGFAST Uniform Automated Fingerprint Identification System \(AFIS\) Feature Symbols Position Statement \(Latent/Tenprint\)](#)

[SWGFAST Standard for the Validation and Performance Review of Friction Ridge Impression Development and Examination Techniques \(Latent/Tenprint\)](#)

# OSAC Documents in Process, Product at SDO

## Documents in Process

- **Under Development**

1. Analysis of Friction Ridge Impressions
2. Comparison & Evaluation of Friction Ridge Impressions
3. Consultation
4. Verification
5. Technical Review
6. Reporting Results
7. Conflict Resolution
8. ACE-V Process Map
9. ABIS Best Practices
10. ASB 015, Standard for the Examination of Friction Ridge Evidence
11. ASB 016, Terminology Related to Friction Ridge Examination

- **Work Product Sent to SDO:**

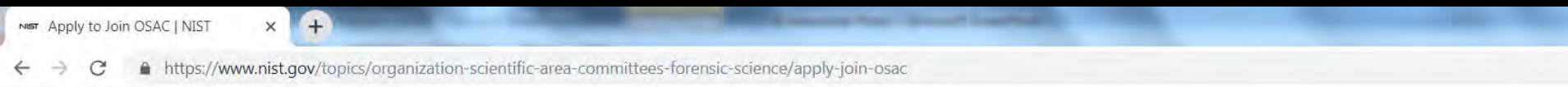
1. [ASB 012, Best Practice Recommendation for Articulating a Source Identification in Friction Ridge Examinations](#)
2. [ASB 013, Standard for Friction Ridge Examination Conclusions](#)
3. [ASB 014, Standard for Friction Ridge Examination Training Program](#)

- **SDO Published:** None currently

- **Entered OSAC Registry Approval Process:** None currently



# Would you like to be involved ?



OSAC Newsroom +

Organizational Structure

Registry +

Implementation Plan

Standards Approval Process +

Charter, Bylaws and Terms of Reference

Lexicon

Research and Development Needs

Catalog of External Standards and Guidelines

Access to Standards

Standards and Documents: Category Descriptions

Apply to Join OSAC

Interdisciplinary Activities

## Apply to Join OSAC

Applicants must complete and submit an [online application form](#) on the NIST forensic science website. The form allows applicants to select a first- and second-choice committee or subcommittee of interest.

- NIST accepts applications for participation in OSAC on a continuous basis.
- With the exception of invited guests, all participants in OSAC must complete the application form.
- OSAC Members and Affiliates will be selected only from the pool of applicants.
- OSAC Task Groups will be populated by Members or a combination of Members and Affiliates.
- Applications are kept on file indefinitely by OSAC for use by the Forensic Science Standards Board (FSSB), Scientific Area Committees (SACs), Resource Committees (RCs), and Subcommittees to make future selections of members and affiliates.

### Membership Roles

- SAC Chairs will sit on the Forensic Science Standards Board
- Subcommittee chairs sit on their relevant SACs
- SAC chairs cannot be subcommittee chairs

### Membership Commitment Requirements

All positions on the OSAC will be 3-year terms. It is anticipated that the FSSB, SACs, resource committees, and subcommittees will conduct business using both in-person and virtual meetings. The FSSB, SACs, and subcommittees will conduct at least one in-person meeting per year. NIST will pay travel, lodging, and per diem expenses for members.

Virtual meetings will occur periodically to accomplish the objectives of all committees and subcommittees and are expected to require a total of 5 days or less throughout the year. Other time commitments include reviewing and editing documents on a periodic basis.

Virtual meetings and virtual training will be held prior to in-person meetings to ensure members are knowledgeable of their duties and OSAC processes. Please visit the [OSAC Newsroom](#) page for the latest updates.



# ASB - AAFS Standards Board (SDO)

- AAFS established SDO
- Dedicated to developing documentary standards for forensics
- What to expect in the following years?
- Widespread promulgation, adoption, and enforcement of recognized standards and, also likely, the true regulation of our profession.
- Working as the SDO and in support of National Institute of Standards and Technology (NIST) Organization of Scientific Area Committees for Forensic Science (OSAC) effort, which began in 2014.
- <https://www.asbstandardsboard.org/>

# AAFS Standards Board Website



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## ACADEMY STANDARDS BOARD

### Documents Open for Public Comment

According to the ASB Policies and Procedures, "Notification of standards development activity shall be announced in suitable media as appropriate to demonstrate an opportunity for participation by all directly and materially affected persons."

### Documents & Forms

These documents explain our purpose and ways we operate. In addition, there are some documents that detail the requirements that we must follow to retain our accreditation.

### Resources & Training

Resources available include the ASB's Style Manual used to develop ASB Standards.

### ASB Newsletter

Subscribe now for the most up-to-date information regarding the ASB.

# Documents Open for Public Comment

According to the ASB Policies and Procedures, "Notification of standards development activity shall be announced in suitable media as appropriate to demonstrate an opportunity for participation by all directly and materially affected persons."

Re-circulation\* – ASB Standard 032, *Standards for a Bloodstain Pattern Analyst's Training Program*, First Edition (Comment Deadline, September 23, 2019)

[Redline Document](#)

[Updated Document](#)

[Comment Resolution](#)

Re-circulation\* – ASB Standard 053, *Standard for Report Content in Forensic Toxicology*, First Edition (Comment Deadline, September 16, 2019)

[Redline Document](#)

[Updated Document](#)

[Comment Resolution](#)

[ASB Standard 061, \*Firearms and Toolmarks 3D Measurement Systems and Measurement Quality Control\*, First Edition](#) (Comment Deadline, August 26, 2019)

[ASB Standard 062, \*Standard for Topography Comparison Software for Toolmark Analysis\*, First Edition](#) (Comment Deadline, August 26, 2019)

[ASB Standard 063, \*Implementation of 3D Technologies in Forensic Firearm and Toolmark Comparison Laboratories\*, First Edition](#) (Comment Deadline, August 26, 2019)

Re-circulation\* – ASB Standard 088, *General Guidelines for Training, Certification, and Documentation of Canine Detection Disciplines*, First Edition (Comment Deadline, August 26, 2019)

[Redline Document](#)

[Updated Document](#)

[Comment Resolution](#)

Re-circulation\* – ASB Standard 099, *Standard for Footwear/Tire Examination Proficiency Testing Program*, First Edition (Comment Deadline, September 16, 2019)

[Redline Document](#)

[Updated Document](#)

[Comment Resolution](#)

*Note: a specific Proposed Resolution must accompany each comment or it cannot be considered.*

*\*Please note that comments on a re-circulation will only be accepted on revised sections of a document, comments made to text not revised from the original public comment period will not be accepted.*

Please download the [template for comments](#) to documents posted for ballot, and return it to [asb@aafs.org](mailto:asb@aafs.org) by the close of the comment period.

# Would you like to be involved ?

<https://www.asbstandardsboard.org/>

https://www.asbstandardsboard.org/aafs-standards-board-consensus-body-descriptions/



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## Friction Ridge Consensus Body

The Friction Ridge Consensus Body focuses on standards and guidelines related to the forensic examination of friction ridge detail from the hands and feet.

**Current Members:** *John Splain (Chair), Meghan Blackburn, Steven Brock, Simon Cole, Heidi Eldridge, Robert Epstein, Michael French, Melissa Gische, Mandi Hornickel, Cindy Hull, Aldo Mattei, Brendan Max, Marzena Mulawka, Lisa O'Daniel, Sarah Olson, Peter Peterson, Stephanie Potter, Alison Rees, William H Schade, Matthew Schwarz, James Snidauf, Henry Swofford, Michele Triplett, Alice White, Lisa M Zinn.*

- Join the Friction Ridge Consensus Body ?
  - Join a Project Group as an observing non-voting member?
  - Join the working group for each particular document?
  - Make a Public Comment during that period?
  - Sign up for the ASB newsletter?
- 
- Please contact Teresa Ambrosius
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# OSAC Registry

– End goal after Public Comment, published at SDO

## FORENSIC SCIENCE

### Friction Ridge Subcommittee

## Friction Ridge Subcommittee



Members of the OSAC Friction Ridge Subcommittee (July 2019)

The Friction Ridge Subcommittee focuses on standards and guidelines related to the forensic examination of friction ridge detail from the hands and feet.



# OSAC Registry

## – End goal after Public Comment, published at SDO

### OSAC Adds Two New Standards to Registry and Opens Comment Period on Two Disaster Victim Identification Standards

June 18, 2019


#### Two New Standards Placed on OSAC Registry

The [Organization of Scientific Area Committees for Forensic Science \(OSAC\)](#) is excited to announce the Forensic Science Standards Board (FSSB) has approved the addition of two standards for listing on the [OSAC Registry](#). The OSAC Registry serves as a trusted repository of high-quality, science-based standards and guidelines for the practice of forensic science. To be placed on the Registry, a standard or guideline must have been developed using a consensus-based process and passed the OSAC technical merit review by forensic practitioners, academic researchers, statisticians, and measurement scientists. OSAC encourages the adoption of standards listed on the OSAC Registry by all relevant agencies and practitioners.



The two latest OSAC Registry Approved standards include:

- [ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories](#) (from an OSAC Interdisciplinary Virtual Subcommittee, June 18, 2019). This document contains requirements for laboratories to enable them to demonstrate they operate competently and can generate valid results, thereby promoting confidence in their work. Many forensic science laboratories are accredited under the 2005 version of this standard and are progressing to meet the updated requirements in the 2017 version. As such, the 2005 version of this standard will also remain on the OSAC Registry through December 2020 to accommodate those laboratories making the transition to the 2017 version. OSAC supports this transition to meeting the requirements of the updated standard. In addition to laboratories, this standard is also useful to universities, research centers, government agencies, regulators, inspection bodies, and conformity assessment bodies with the need to do testing, sampling, or calibration.
- [ANSI/ASB Standard 017, Standard Practices for Measurement Traceability in Forensic Toxicology, First Edition, 2018](#) (from the OSAC [Toxicology Subcommittee](#), June 18, 2019). This standard defines the minimum requirements for establishing measurement traceability in forensic toxicology laboratories. This is the first forensic toxicology standard to be placed on the OSAC Registry. The OSAC Toxicology Subcommittee is championing many more standards through both the standards development process and the OSAC Registry Approval process to continue to enhance the discipline.

 ORGANIZATIONS

#### RELATED CONTENT

[OSAC Standards Bulletin, July 2019](#)

[OSAC Standards Bulletin, June 2019](#)

[OSAC Standards Bulletin, May 2019](#)

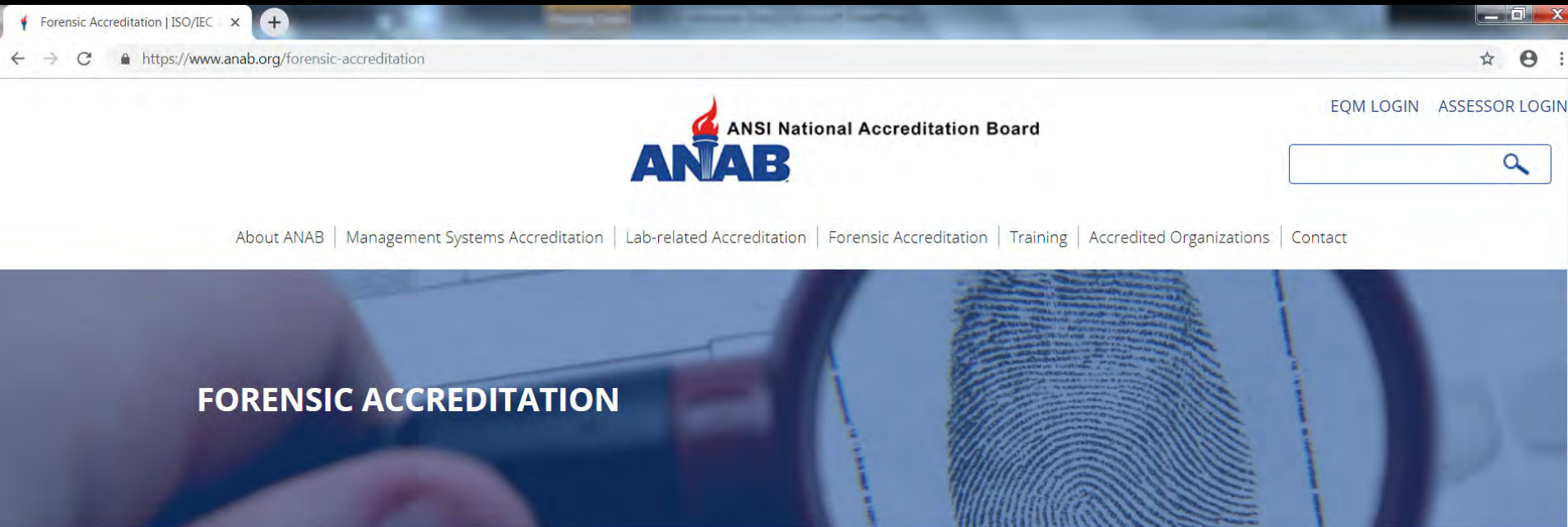
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# ISO Standards and Accreditation



The screenshot shows the ANAB website interface. At the top, there is a browser tab for 'Forensic Accreditation | ISO/IEC' and the URL 'https://www.anab.org/forensic-accreditation'. The ANAB logo, featuring a torch and the text 'ANSI National Accreditation Board ANAB', is centered. To the right, there are links for 'EQM LOGIN' and 'ASSESSOR LOGIN', and a search bar. Below the logo, a navigation menu includes 'About ANAB', 'Management Systems Accreditation', 'Lab-related Accreditation', 'Forensic Accreditation', 'Training', 'Accredited Organizations', and 'Contact'. The main content area features a large image of a fingerprint being scanned, with the text 'FORENSIC ACCREDITATION' overlaid in white.

ANAB is the leader for independent third-party accreditation of forensic agencies, offering accreditation based on ISO/IEC 17020 and ISO/IEC 17025.

- Purchase a copy of ISO 17020 or ISO 17025 from ANSI
- Additional requirements as set out by ANAB
  - ISO 17020 – Inspection Bodies (Fingerprint Comparison)
  - ISO 17025 – Forensic Laboratories
- Requirements met in audit Nimonik Checklist and Sharefile

# Journals and Publications

- Chicago - Brandon Max – List of critical documents
- OSAC Website has those “Baseline Standards”
- What about the relevant articles ???
- Already shown have easy access to JFI articles
- Journal of Forensic Science International
- Journal of Royal Statistical Society
- NIST Publications – Human Factors Report
- NCFS – Analysis based on Task-relevant information
- Leverage the “free source” locations of these documents
- PNAS, Open Access, PlosOne, Elsevier etc
- List of references in “Articulation Document”
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# Journals and Publications

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← → ↻ https://www.nist.gov/sites/default/files/documents/2017/10/17/guideline\_for\_the\_articulation\_of\_the\_decision-making\_process\_leading\_to\_an\_expert\_opinion\_of\_source\_identification\_in\_friction\_ri...

*This document has been accepted by the Academy Standards Board (ASB) for development as an American National Standard (ANS). For information about ASB and their process please refer to [asb.aafs.org](http://asb.aafs.org). This document is being made available at this stage of the process so that the forensic science community and interested stakeholders can be more fully aware of the efforts and work products of the Organization of Scientific Area Committees for Forensic Science (OSAC). The documents were prepared with input from OSAC Legal Resource Committee, Quality Infrastructure Committee, and Human Factors Committees, as well as the relevant Scientific Area Committee. The content of the documents listed below is subject to change during the standards development process within ASB, and may not represent the contents of the final published standard. All stakeholder groups or individuals, are strongly encouraged to submit technical comments on this draft document during the ASB's open comment period. Technical comments will not be accepted if submitted to the OSAC Scientific Area Committee or Subcommittees.*

## **Guideline for the Articulation of the Decision-Making Process Leading to an Expert Opinion of Source Identification in Friction Ridge Examinations** **DRAFT**



**DRAFT DOCUMENT**

# Journals and Publications

National Research Council (2009). *Strengthening forensic science in the United States: A path forward*. Washington, D.C., The National Academies Press.

Neumann, C., C. Champod, et al. (2007). "Computation of likelihood ratios in fingerprint identification for configurations of any number of minutiae." *Journal of Forensic Sciences* 52(1): 54-64.

Neumann, C., I. W. Evett, et al. (2012). "Quantifying the weight of evidence from a forensic fingerprint comparison: a new paradigm." *Journal of the Royal Statistical Society A*(175, Part 2): 371-415.

Page, M., Taylor, J., et al. (2011). "Uniqueness in the forensic identification sciences: Fact or fiction?" *Forensic Science International* 206(1-3): 12-18.

Stoney, D. A. and J. I. Thornton (1986). "A critical analysis of quantitative fingerprint individuality models." *Journal of Forensic Sciences* 31(4): 1187-1216.

Swofford, H. (2015). "The emerging paradigm shift in the epistemology of fingerprint conclusions." *Journal of Forensic Identification* 65(3): 201-213.

Tangen, J. M., M. B. Thompson, et al. (2011). "Identifying fingerprint expertise." *Psychological Science* 22(8): 995-997.

Ulery, B. T., R. A. Hicklin, et al. (2011). "Accuracy and reliability of forensic latent fingerprint decisions." *Proceedings of the National Academy of Sciences* 108(19): 7733-7738.

Ulery, B.T. R. A. Hicklin, et al. (2014). "Measuring what latent fingerprint examiners consider sufficient information for individualization determinations." *PLoS ONE* 9(11): e110179-72.

Wertheim, K. (2011). Embryology and morphology of friction ridge skin. *The fingerprint sourcebook*. A. McRoberts. Washington, DC, U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice.

Wilder, H. H. and B. Wentworth (1932). *Personal identification – Methods for the identification of individuals living or dead*. Chicago, The Fingerprint Publishing Association.

Yoon, S. and A.K. Jain (2015). "Longitudinal study of fingerprint recognition." *PNAS* 112(28): 8555-8560.

- PNAS, Open Access, PlosOne, Elsevier etc
- List of references in "Articulation Document"
- Just "Google" the titles looking for free PDF's
- Compile your own local "Electronic Library"
- Network your local FR examiners and email groups for free PDF versions that are shareable

# Local Electronic Library

 SAURO - The Use of Gelatin Lifters for the Preserving of Fingerprints in Dust	1/30/2014
 SCCSO - Establishing Foundation for Latents and Tenprints	2/22/2018
 SCCSO - International Fingerprint Standards - IAI Resolution 1973 and Ne'urium Declaration 1995	1/25/2018
 SRIHARI et al_Discriminability of Fingerprints of Twins_2008	8/7/2014
 SRIHARI_Statistical_Study_of_Twins_FP	8/18/2014
 State of NC v Brogsdale Motion to Exclude Transcripts	6/23/2016
 SWOFFORD, KOERTNER et al - A method for the statistical interpretation of friction ridge skin impression evidence - Method development and validation	4/19/2018
 The impact of proficiency testing information and error aversions on the weight given to fingerprint evidence 2018	3/19/2019
 THE PEOPLE v. LATANYA STAMPS FindLaw	7/24/2017
 THOMPSON TANGEN MCARTHY - Human Matching Performance of Genuine Crime Scene Latent Fingerprints 2013	4/5/2018
 THOMPSON TANGEN MCARTHY - Identifying Fingerprint Expertise 2013	3/16/2018
 Thompson, How Should Forensic Scientists Present Source Conclusions-Published	8/13/2018
 THOMPSON-et al - After Uniqueness- The Evolution of Forensic Science Opinions	7/18/2018
 Tolerances Doc for release to LP community	8/29/2018
 TRIPLETT COONEY - The Etiology of ACE-V and its Proper Use - An exploration of the relationship between ACE-V and the scientific method of hypothesis testing - JFI-2...	4/6/2018
 ULERY - 9th NOBLIS Black Box Study Exclusions Preso by Tatiana	6/8/2017
 ULERY HICKLIN BUSCAGLIA ROBERTS - Accuracy and reliability of forensic latent fingerprint decisions 2011	2/21/2018
 ULERY HICKLIN BUSCAGLIA ROBERTS - Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners	2/21/2018
 ULERY HICKLIN ROBERTS BUSCAGLIA - Factors associated with latent fingerprint exclusion determinations 2017 - Exclusions	5/18/2017
 ULERY HICKLIN ROBERTS BUSCAGLIA - Measuring what latent fingerprint examiners consider sufficient information for individualisation determinations	3/16/2018
 USACIL Information Paper - Using Likelihood Ratios in Reporting	5/18/2017
 Vucetich Video-HD	3/27/2016
 Washington Court of Appeals 3.11.2019 letter-opinion on PCAST	3/14/2019
 WERTHEIM MACEO -The-Critical-Stage-of-Friction-Ridge-and-Pattern-Formation	12/28/201
 WERTHEIM_LANGENBURG_MOENSSSENS - A Report of Latent Print Examiner Accuracy During Comparison Training Exercises	2/21/2018
 WERTHEIM_Pat_JacksonPollockReport - Forgery	6/20/2013

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ULERY HICKLIN BUSCAGLIA ROBERTS - Accuracy and reliability of forensic latent fingerprint decisions 2011.pdf - Adobe Acrobat Reader DC

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## Accuracy and reliability of forensic latent fingerprint decisions

Bradford T. Ulery<sup>a</sup>, R. Austin Hicklin<sup>a</sup>, JoAnn Buscaglia<sup>b,1</sup>, and Maria Antonia Roberts<sup>c</sup>

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Edited by Stephen E. Fienberg, Carnegie Mellon University, Pittsburgh, PA, and approved March 31, 2011 (received for review December 16, 2010)

The interpretation of forensic fingerprint evidence relies on the expertise of latent print examiners. The National Research Council of the National Academies and the legal and forensic sciences communities have called for research to measure the accuracy and reliability of latent print examiners' decisions, a challenging and complex problem in need of systematic analysis. Our research is focused on the development of empirical approaches to studying this problem. Here, we report on the first large-scale study of the accuracy and reliability of latent print examiners' decisions, in which 169 latent print examiners each compared approximately 100 pairs of latent and exemplar fingerprints from a pool of 744 pairs. The fingerprints were selected to include a range of attributes and quality encountered in forensic casework, and to be comparable to searches of an automated fingerprint identification system containing more than 58 million subjects. This study evaluated examiners on key decision points in the fingerprint examination process; procedures used operationally include additional safeguards designed to minimize errors. Five examiners made false positive errors for an overall false positive rate of 0.1%. Eighty-five percent of examiners made at least one false negative error for an overall false negative rate of 7.5%. Independent examination of the same comparisons by different participants (analogous to blind verification) was found to detect all false positive errors and the majority of false negative errors in this study. Examiners frequently differed on whether fingerprints were suitable for reaching a conclusion.

The interpretation of forensic fingerprint evidence relies on the expertise of latent print examiners. The accuracy of decisions made by latent print examiners has not been ascertained in a large-scale study, despite over one hundred years of the forensic

tion content is sufficient to make a decision. Latent print examination can be complex because latents are often small, unclear, distorted, smudged, or contain few features; can overlap with other prints or appear on complex backgrounds; and can contain artifacts from the collection process. Because of this complexity, experts must be trained in working with the various difficult attributes of latents.

During examination, a latent is compared against one or more exemplars. These are generally collected from persons of interest in a particular case, persons with legitimate access to a crime scene, or obtained by searching the latent against an Automated Fingerprint Identification System (AFIS), which is designed to select from a large database those exemplars that are most similar to the latent being searched. For latent searches, an AFIS only provides a list of candidate exemplars; comparison decisions must be made by a latent print examiner. Exemplars selected by an AFIS are far more likely to be similar to the latent than exemplars selected by other means, potentially increasing the risk of examiner error (18).

The prevailing method for latent print examination is known as analysis, comparison, evaluation, and verification (ACE-V) (19, 20). The ACE portion of the process results in one of four decisions: the analysis decision of no value (unsuitable for comparison); or the comparison/evaluation decisions of individualization (from the same source), exclusion (from different sources), or inconclusive. The Scientific Working Group on Friction Ridge Analysis, Study and Technology guidelines for operational procedures (21) require verification for individualization decisions, but verification is optional for exclusion or inconclusive decisions. Verification may be blind to the initial examiner's decision, in which case all types of decisions would need to be verified.

PNAS

APPLIED BIOLOGICAL SCIENCES

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## Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners

Bradford T. Ulery<sup>1</sup>, R. Austin Hicklin<sup>1</sup>, JoAnn Buscaglia<sup>2\*</sup>, Maria Antonia Roberts<sup>3</sup>

<sup>1</sup> Noblis, Falls Church, Virginia, United States of America, <sup>2</sup> Counterterrorism and Forensic Science Research Unit, Federal Bureau of Investigation Laboratory Division, Quantico, Virginia, United States of America, <sup>3</sup> Latent Print Support Unit, Federal Bureau of Investigation Laboratory Division, Quantico, Virginia, United States of America

### Abstract

The interpretation of forensic fingerprint evidence relies on the expertise of latent print examiners. We tested latent print examiners on the extent to which they reached consistent decisions. This study assessed intra-examiner repeatability by retesting 72 examiners on comparisons of latent and exemplar fingerprints, after an interval of approximately seven months; each examiner was reassigned 25 image pairs for comparison, out of total pool of 744 image pairs. We compare these repeatability results with reproducibility (inter-examiner) results derived from our previous study. Examiners repeated 89.1% of their individualization decisions, and 90.1% of their exclusion decisions; most of the changed decisions resulted in inconclusive decisions. Repeatability of comparison decisions (individualization, exclusion, inconclusive) was 90.0% for mated pairs, and 85.9% for nonmated pairs. Repeatability and reproducibility were notably lower for comparisons assessed by the examiners as "difficult" than for "easy" or "moderate" comparisons, indicating that examiners' assessments of difficulty may be useful for quality assurance. No false positive errors were repeated ( $n=4$ ); 30% of false negative errors were repeated. One percent of latent value decisions were completely reversed (no value even for exclusion vs. of value for individualization). Most of the inter- and intra-examiner variability concerned whether the examiners considered the information available to be sufficient to reach a conclusion; this variability was concentrated on specific image pairs such that repeatability and reproducibility were very high on some comparisons and very low on others. Much of the variability appears to be due to making categorical decisions in borderline cases.

**Citation:** Ulery BT, Hicklin RA, Buscaglia J, Roberts MA (2012) Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners. PLoS ONE 7(3): e32800. doi:10.1371/journal.pone.0032800

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**Competing Interests:** BTU and RAH are employees of Noblis, Inc. This work was funded in part under a contract award to Noblis, Inc. (GSA MOBIS contract GS-10F-0189T, task order #12) from the Federal Bureau of Investigation (FBI) Biometric Center of Excellence. The work by coauthors JB and MAR (employees of the FBI Laboratory), was funded by the FBI Laboratory. There are no patents, products in development or marketed products to declare. This does not alter the authors' adherence to all the PLoS ONE policies on sharing data and materials, as detailed online in the guide for authors. The relevant forensic science community is relatively small and the proposed reviewers are colleagues whose work the authors highly regard. The authors declare no financial interest with any of these reviewers; however, some authors are working on the same working groups (professional committees) as the proposed reviewers.

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 PLOS ONE

## Measuring What Latent Fingerprint Examiners Consider Sufficient Information for Individualization Determinations



Bradford T. Ulery<sup>1</sup>, R. Austin Hicklin<sup>1</sup>, Maria Antonia Roberts<sup>2</sup>, JoAnn Buscaglia<sup>3\*</sup>

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### Abstract

Latent print examiners use their expertise to determine whether the information present in a comparison of two fingerprints (or palmprints) is sufficient to conclude that the prints were from the same source (individualization). When fingerprint evidence is presented in court, it is the examiner's determination—not an objective metric—that is presented. This study was designed to ascertain the factors that explain examiners' determinations of sufficiency for individualization. Volunteer latent print examiners ( $n=170$ ) were each assigned 22 pairs of latent and exemplar prints for examination, and annotated features, correspondence of features, and clarity. The 320 image pairs were selected specifically to control clarity and quantity of features. The predominant factor differentiating annotations associated with individualization and inconclusive determinations is the count of corresponding minutiae; other factors such as clarity provided minimal additional discriminative value. Examiners' counts of corresponding minutiae were strongly associated with their own determinations; however, due to substantial variation of both annotations and determinations among examiners, one examiner's annotation and determination on a given comparison is a relatively weak predictor of whether another examiner would individualize. The extensive variability in annotations also means that we must treat any individual examiner's minutia counts as interpretations of the (unknowable) information content of the prints: saying "the prints had  $N$  corresponding minutiae marked" is not the same as "the prints had  $N$  corresponding minutiae." More consistency in annotations, which could be achieved through standardization and training, should lead to process improvements and provide greater transparency in casework.

**Citation:** Ulery BT, Hicklin RA, Roberts MA, Buscaglia J (2014) Measuring What Latent Fingerprint Examiners Consider Sufficient Information for Individualization Determinations. PLoS ONE 9(11): e110179. doi:10.1371/journal.pone.0110179

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# Webinars – DOJ-CFRSG

- California Friction Ridge Study Group
  - Host a monthly webinar at DOJ
  - 2<sup>nd</sup> Wednesday month 9-11am
  - Email: [Lori.orr@doj.ca.gov](mailto:Lori.orr@doj.ca.gov)
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# Webinars – DOJ-CFRSG



State of California Department of Justice



BCIA 724 - Revised

## CJIS Programs

AB 953 – Stop Data Collection

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than Friday, March 8, 2019.

- [CLETS Subscriber Agreement, revised February 2019](#) – The Agency Head must sign the revised CLETS Subscriber Agreement form and return a signed copy to the CLETS Administration Section at [CAS@doj.ca.gov](mailto:CAS@doj.ca.gov) no later than **Friday, March 8, 2019**.

If you have multiple ORIs, submit one report and list all ORIs for your agency, if applicable.

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Pursuant to Section 1.10.1 System Misuse of the CLETS Policies, Practices and Procedures, after January 1, 2019 but before February 1, 2019, your agency must submit an annual CLETS Misuse Investigation Reporting form indicating the number of investigations performed in 2018 related to CLETS misuse, and any disciplinary action taken.

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Please make sure this has been done, as the Misuse Investigation Reports are now due.

If your agency did not have any reported misuse, you still must submit the form with your agency contact information and the form marked no investigations performed. The form, which is fillable, can be found on CLEW under the Resources tab. On the Forms link, it is labeled HDC 0010.

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## 18-09-CJIS: California Law Enforcement Telecommunications System (CLETS) Technical Guide-CLETS Message Header Requirements

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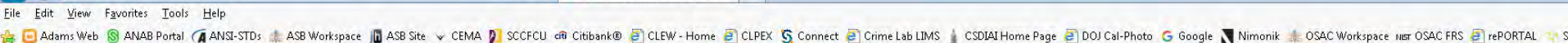
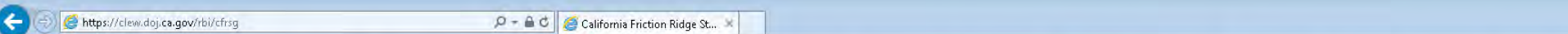
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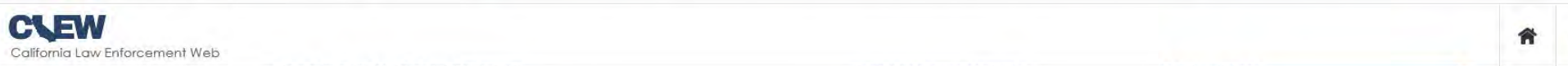
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# Webinars – DOJ-CFRSG



State of California Department of Justice



Latent Print Supervisor: **Demick Morsawa** demickmorsawa@doj.ca.gov

If you are interested in joining the group, or would like more information, please contact:

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Universal Latent Workstation - Advanced Flyer - 2017, June	<a href="#">advanced_ULW_flyer-june2017.pdf</a>
AFIS 31st Internet Conference - 6-14-17 CFRSG Webinar	<a href="#">AFIS-Internet-conference.pdf</a>
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CFRSG Summary - 2017, June	<a href="#">meeting_sum_June-2017.pdf</a>
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Logical Latent Analysis class Flyer - 2017	<a href="#">ca-lla-class2017.pdf</a>
Universal Latent Workstation - beginner Flyer - 2017, June	<a href="#">beginner_ULW_flyer-june2017.pdf</a>
1/10/18 CFRSG Webinar - California Criminalistics Institute (CCI)	<a href="#">january-2018-cci.ppt</a>
1/10/18 CFRSG Webinar - Latent Print Certification Board Update	<a href="#">january-2018-latent-print-cert.ppt</a>
1/10/18 CFRSG Webinar - Poll Results	<a href="#">january-2018-poll-results.pdf</a>
1/10/18 CFRSG Webinar - Presentation	<a href="#">january-2018-presentation1.ppt</a>
1/10/18 CFRSG Webinar - Webinar Summary	<a href="#">january-2018-webinar-summary.pdf</a>
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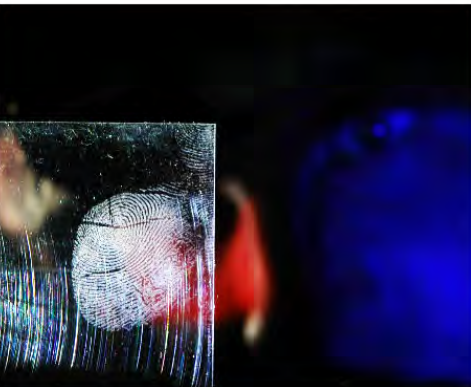
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- 11/14/18 CFRSG Webinar Current Trends in Legal Challenges to Fingerprint Evidence  
[cfrsg-webinar-legal-challenges-watroba-1118.ppsx](#)
- 11/14/18 CFRSG Webinar Amy M. Watroba Biography  
[cfrsg-webinar-watroba-bio.pdf](#)
- 3/13/19 CFRSG Webinar Summary  
[march-2019-webinar-summary.pdf](#)
- 3/13/19 CFRSG Webinar Cal-ID Program Hours of Operation Change  
[march-2019-webinar-cal-id-prog-hours.pdf](#)

# Webinars – CSAFE

- Center for Statistics and Applications in Forensic Science (CSAFE)
  - Build statistically sound and scientifically solid foundation for analysis and interpretation of forensic evidence
  - Funded by NIST
  - Host training resources and webinars for forensic examiners
  - <https://forensicstats.org/>

# Webinars – CSAFE

## AVAILABLE WEBINARS



### HOW JURORS EVALUATE FINGERPRINT EVIDENCE

This CSAFE Center Wide webinar was presented on April 2, 2019 by Brandon Garrett, CSAFE researcher and the L. Neil Williams Professor of Law at Duke University. Brandon Garrett has provided [-]



### SIMILARITY OF TWO-DIMENSIONAL IMAGES: AN APPLICATION TO THE FORENSIC COMPARISON OF SHOE OUTSOLE IMPRESSIONS

This CSAFE Center Wide webinar was presented on March 11, 2019 by Dr. Soyoung Park, CSAFE Post Doctoral researcher at Iowa State University. Dr. Park has provided presentation slides. [-]



### COVERING THE BASIC CONCEPTS SURROUNDING THE WEIGHT AND STRENGTH OF EVIDENCE

This CSAFE Center Wide webinar was presented on January 7, 2019 by Dr. Danica Ommen, CSAFE researcher and Assistant Professor at Iowa State University. Dr. Ommen has provided presentation slides [-]



### RESEARCH AND CRIME SCENE RECONSTRUCTION: WHAT SHOULD IT LOOK LIKE?

This CSAFE Center Wide webinar was presented on December 13, 2018 by Professor Keith Inman, CSAFE colleague and Associate Professor at California State University East Bay. Professor Inman has provided presentation slides [-]



# Webinars – Forensic Technology Center of Excellence – <https://forensiccoe.org>

https://forensiccoe.org/ Forensic Technology Center... x

## RECENT ACTIVITIES

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### WEBINAR

Archival coming soon  
Emerging Research in Forensic Biology



### WEBINAR

Archival coming soon  
Surviving Sexual Assault – It Takes A Village



### WEBINAR

Archived April 2019  
Building Forensic Capacity Post-Conflict:  
Lessons from Uganda (HHRC Series)



### WEBINAR

Archived April 2019  
Emerging Research in Forensic Chemistry



### REPORT

Published April 2019  
Success Story: Improving DNA Mixture  
Interpretation with the Help of Machine Learning



### WEBINAR

Archived March 2019  
Emerging Research in Medicolegal Death  
Investigations



### WEBINAR

Archived March 2019  
DNA Evidence in Groping Sexual Assault Cases



### PODCAST

New Episode 4/8  
Identification: Just the Double Loop Podcast  
Crossover

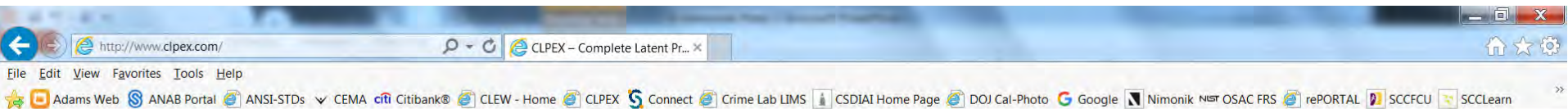
# Community Forums and Websites

- Complete Latent Print Examination (CLPEX)
  - Community Forum where latent print examiners can come together and discuss relevant topics
  - Also allows other forum members, from all different industry post on issues
  - Public chat board
  - Create a profile and login
  - Moderated by Boyd Baumgartner and Steve Everist
  - <http://www.clpex.com>



# Community Forum – CLPEX

## www.clpex.com



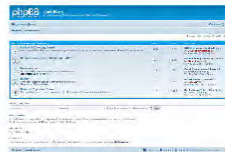
[Home](#) [Legacy](#) [Forum](#) [SWGFAST](#) [Contact Us](#)



## FINGERPRINTS

### Nehemiah Grew – 1684

If anyone will but take the pains, with an indifferent glass to survey the palm of his hand, he may perceive... innumerable little ridges of equal bigness and distance, and everywhere running parallel one with another.



#### FORUM

Come and discuss all things fingerprinting. From AFIS to breaking news to chemical applications to general commentary on the state of our discipline.

[Take me there!](#)



#### SMILEY FILES

Examples of remarkable faces and symbols within fingerprints. Submitted by latent print examiners found during actual case work.

[Take me there!](#)



#### RESOURCES

Want to know the big picture? Links to such resources as the OIG report on the Mayfield Error, NAS and PCAST reports, the Fingerprint Source Book, etc.

[Take me there!](#)

# Community Forum – CLPEX

## www.clpex.com

http://www.clpex.com/phpBB/viewforum.php?f=2&sid=ace06... Public CLPEX Message Boar... x

File Edit View Favorites Tools Help  
 Adams Web ANAB Portal ANSI-STDs CEMA Citibank® CLEW - Home CLPEX Connect Crime Lab LIMS CSDIAI Home Page DOJ Cal-Photo Google Nimonik OSAC FRS rePORTAL SCC

**phpBB® Chat Board**  
 creating communities A website by latent print examiners for latent print examiners

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**Public CLPEX Message Board**

[New Topic](#) Search this forum...  2100 topics [1](#) [2](#) [3](#) [4](#) [5](#) ... [42](#)

ANNOUNCEMENTS	REPLIES	VIEWS	LAST POST
<b>Double Loop Podcast</b> by ER » Tue May 30, 2017 9:02 am This topic was posted 689 days ago	33	1119	by ER Sun Mar 17, 2019 8:09 pm
<b>"Weekly Detail" weekly list of news articles</b> by SPotter » Tue May 29, 2012 2:03 pm This topic was posted 2516 days ago	364	62724	by SPotter Mon Apr 15, 2019 5:55 am

TOPICS	REPLIES	VIEWS	LAST POST
<b>Case load per examiner</b> by MitchR » Wed Apr 17, 2019 9:54 am This topic was posted 2 days ago	2	69	by <b>Boyd Baumgartner</b> Fri Apr 19, 2019 10:53 am
<b>Two surveys for the IAI's BIS</b> by <b>josh89</b> » Tue Apr 16, 2019 8:34 am This topic was posted 3 days ago	0	75	by <b>josh89</b> Tue Apr 16, 2019 8:34 am
<b>Processing Styrofoam</b> by ekuadam » Wed Apr 10, 2019 11:06 am This topic was posted 9 days ago	3	129	by NRivera Thu Apr 11, 2019 10:33 am
<b>Verifying negative processing results</b> by Snyder22 » Mon Mar 25, 2019 10:29 am This topic was posted 25 days ago	15	415	by 4n6Dave Tue Apr 09, 2019 11:45 am
<b>Possible areas to improve (needs assessment)</b> by Michele » Wed Apr 03, 2019 6:34 am This topic was posted 16 days ago	4	225	by g. Thu Apr 04, 2019 9:21 pm
<b>Article:What happens when a jury grapples with perplexing science</b> by <b>Boyd Baumgartner</b> » Thu Apr 04, 2019 8:03 am This topic was posted 15 days ago	0	101	by <b>Boyd Baumgartner</b> Thu Apr 04, 2019 8:03 am
<b>Fingerprint Evidence vs Eyewitness Evidence</b> by Simon Bunter » Thu Feb 28, 2019 10:39 am This topic was posted 50 days ago	11	466	by Simon Bunter Thu Apr 04, 2019 6:35 am
<b>Database Search Helps Erroneously Convicted Man</b> by GrayMatter » Fri Mar 22, 2019 8:34 am This topic was posted 28 days ago	9	284	by g. Tue Mar 26, 2019 8:41 pm
<b>Songs to Compare Fingerprints By</b> by ER » Sun Mar 17, 2019 8:19 pm This topic was posted 33 days ago	6	283	by Dan Perkins Tue Mar 26, 2019 1:13 pm
<b>Update your references</b> by NRivera » Tue Mar 12, 2019 6:05 am This topic was posted 38 days ago	4	200	by ekuadam Fri Mar 22, 2019 9:15 am

# Community Forums and Websites

The screenshot shows a web browser window with the address bar displaying <http://onin.com/fp/>. The page title is "Latent Print Examination". The main content area features a search bar and a navigation menu with options like HOME, EXPERTS, GENERAL INFO, and POLICE. A prominent red box contains the text "Search Topic Latent Prints or Fingerprints". Below this, there is a "Fingerprint News" section with a "Powered by Google" logo. The main article is titled "A Note for FBI NGI Users..." and discusses research from the 2018 IAI Conference regarding NGI latent print search results. The article text includes: "One of the most valuable pieces of fingerprint-related information shared at the 2018 IAI Conference involves FBI Lab and CJIS research about about NGI latent print search result candidate scores. At the IAI Conference in San Antonio, FBI Latent Print Examiner Kyle Tom explained that preliminary research showed that when the matching scores of the #1 and #2 candidates have a difference of 1,250 or more, 83.5% of the time it will be an identification." and "This is important because it means all agencies should consider implementing a policy that any such 1,250 or more difference in NGI candidate responses should require review by more than one examiner - either because the first examiner made an identification, or because there is an increased chance of an erroneous exclusion. Hopefully, the FBI will publish research on this topic in the future." The article is signed by Ed German, a Certified Latent Print Examiner, IAI, and Certified Biometrics Professional, IEEE, dated 14 Oct 2018. A sidebar on the left contains various navigation links such as "Fingerprint History", "Expert Topics", "General Information", "Investigator Topics", "FAQs", "OSAC", "SWGFAST", "NIST", "FBI BCOE", "FBI Certified ABIS/AFIS Products", "IAI", "FP Society", "AFIS", "Certification", "CLPEX", "Consultants", "Daubert", "Employment", "Equipment and Supplies", and "Forum".

- <http://www.onin.com/>
- Moderated by Ed German
- Great source of fingerprint related information

# Community Forums and Websites

## <http://www.in-the-loop.net.au>

https://www.in-the-loop.net.au/ In The Loop - Forensic Scie... x

Saturday, April 20, 2019 Sign in / Join

INTHELOOP  
Forensic Resource for Latent and Crime Scene Examiners

Home Fingerprints Crime Scene Court Testimony Case Studies Conferences

**TRENDING NOW** FBI Validates STRmix™ for Use on Up to Five-Person Mixtures

**LATEST POSTS**

**Time of death written in your genes — and it could help forensic investigators**  
Michael Whyte - February 17, 2018

**How Good a Match is It? Putting Statistics into Forensic Firearms Identification**  
Michael Whyte - February 11, 2018  
On February 14, 1929, gunmen working for Al Capone disguised

**MOST POPULAR**

**10 Famous Cases Cracked by Forensics**  
Michael Whyte - October 31, 2014  
Ted Bundy Although serial killer Ted Bundy was responsible for an estimated 30-plus murders, there was little physical evidence to connect him to the crimes...

**The acid test: Can you dissolve a body completely?**

1,059 Fans LIKE  
98 Followers FOLLOW

Moderated by Michael Whyte

Great source of fingerprint related information

<http://www.in-the-loop.net.au>

# Podcasts

- Double Loop Podcast
  - Glenn Langenburg and Eric Ray
  - [Just passed 200 Episodes !!!!](#)
  - Weekly show discussing latent print topics, current events in forensic science, the newest research articles, interesting guests, and analysis of notable cases from a forensic scientist perspective
  - <https://soundcloud.com/double-loop-podcast>
- Forensic Technology Center of Excellence (FTCoE)
  - Website: <http://www.forensiccoe.org>
  - Website has a repository of webinars, podcasts and training resources

# Podcasts – <https://soundcloud.com/double-loop-podcast>

The screenshot shows the SoundCloud profile for the Double Loop Podcast. The profile banner features a magnifying glass over fingerprints with the text "Double Loop Podcast" and "Glenn Langenburg and Eric Ray, Paradise Valley, United States". The navigation bar includes "Home", "Stream", "Library", a search bar, "Sign in", "Create account", and "Upload". The main content area displays a list of tracks under the "All" tab, including "Episode 201 - Gaze Detection Article", "Episode 200 - Michael Whyte Interview", and "Episode 199 - Brandon Garrett Interview". Each track entry includes a play button, a waveform, duration, and interaction options like "Repost", "Share", and "More". On the right, there are statistics for "Station", "Follow", and "Share", along with a list of social media links for Facebook, Patreon, and Twitter.

Double Loop Podcast | Free List... x

soundcloud.com/double-loop-podcast

SOUNDCLOUD Home Stream Library Search for artists, bands, tracks, podcasts Sign in Create account Upload

Double Loop Podcast  
Glenn Langenburg and Eric Ray  
Paradise Valley, United States

Double Loop Podcast

All Tracks Albums Playlists Reposts (Station) Follow Share

Double Loop Podcast  
Episode 201 - Gaze Detection Article  
15 days ago  
# Science  
1:07:20  
1 1,429

Double Loop Podcast  
Episode 200 - Michael Whyte Interview  
29 days ago  
# Science  
1:11:02  
1 1,545 1

Double Loop Podcast  
Episode 199 - Brandon Garrett Interview  
3 months ago  
# Science  
1:11:31

Followers 388 Following 0 Tracks 98

Whether you're a practicing Latent Print Examiner or you're interested in forensics and true crime, the Double Loop Podcast is a weekly show featuring Glenn Langenburg and Eric Ray discussing latent print topics, current events in

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Double Loop Podcast  
Episode 200 - Michael Whyte Interv...  
1,545 1 1

Herqulaze  
Hans Zimmer - Chevaliers de Sangr...

# Local Friction Ridge Study Groups

- Northern California Friction Ridge Study Group
  - Host quarterly in person meetings
  - Website: <https://ckhullforensics.com/ncfsg/>
  - Email: [Cindy Hull - cindy@ckhullforensics.com](mailto:cindy@ckhullforensics.com)
- California Central Coast Friction Ridge Study Group
  - Host quarterly in person meetings
  - Email: [Tatiana Shlafer - Tatiana.Shlafer@santacruzcounty.us](mailto:Tatiana.Shlafer@santacruzcounty.us)
- Southern California Association of Fingerprint Officers
  - Host bi-monthly in person meetings and annual conferences
  - Website: <https://www.scafo.org>
  - Email: [Jessica Callinan - jessica@scafo.org](mailto:jessica@scafo.org)

# Local Friction Ridge Study Groups

- Bay Area Friction Ridge Study Group
  - Host quarterly in person meetings
  - Email: [Heather Pulford – Heather.Pulford@hayward-ca.gov](mailto:Heather.Pulford@hayward-ca.gov)



# Email Share Groups

- Email share groups are a fantastic resource to be able to leverage for recent issues, articles and discussions in your local area
- Cindy Hull Email Group
  - Website: <https://ckhullforensics.com/>
  - Email: Cindy Hull - [cindy@ckhullforensics.com](mailto:cindy@ckhullforensics.com)
- Michele Triplett Email Group
  - Email: Michele Triplett - [Michele.Triplett@kingcounty.gov](mailto:Michele.Triplett@kingcounty.gov)
- Sandy Siegel Email Group
  - Email: Sandy Siegel – [ssiegel@houstonforensicscience.org](mailto:ssiegel@houstonforensicscience.org)

# Friction Ridge Resources

- International Association for Identification
- California State Division
- Conferences and Seminars
- Training Providers and External Courses
- Internal Courses
- Referenced Textbooks
- OSAC – Friction Ridge Sub-committee
  - Legacy SWGFAST baseline documents

# Friction Ridge Resources

- ASB - AAIFS Standards Board (SDO)
- OSAC Registry
- ISO Standards
- Websites
- Journals
- Webinars
- Community Forums
- Podcasts
- Local Study Groups
- Email Lists

Keeping the Vision in 2020



**Speakers Chair – Marrkel SMITH**  
**Msmith@fremont.gov**

[www.csdiai.org](http://www.csdiai.org)

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**2020**



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# Questions ?



**Steven Brock, CLPE**  
**Latent Fingerprint Examiner Supervisor**

Sheriff's Identification Unit  
Santa Clara County Sheriff's Office

Phone: +1(408) 808-4750

Fax: +1(408) 995-6005

Cell: +1(408) 876-9292

Email: [steve.brock@shf.sccgov.org](mailto:steve.brock@shf.sccgov.org)

**Friction Ridge Resources – Sources of  
Information for the Friction Ridge Examiner**