

Fingerprint Evidence

Criminal Justice

Friction ridge comparison, the ACE-V method, and its real error sources.

Friction ridge comparison produces an examiner's opinion, reached by a structured method.

METHOD

Analyse · compare · evaluate · verify

KNOWN FAILURE

The Mayfield misidentification, 2004

- ACE-V: analyse, compare, evaluate, verify
- The conclusion is an opinion, not a measurement
- Measured error rates are low but not zero
- Recovered marks are often partial or distorted
- Case information can bias the comparison

LOOK FOR IT

Blind verification and documented reasoning reduce known error sources.

Educational reference. Studies have measured false positive rates well under one per cent, but zero error is not a defensible claim.