



Netherlands Forensic Institute  
*Ministry of Security and Justice*

# Software for Likelihood Ratio Calculation

## Two-days workshop for forensic experts

### 8-9 May 2017, The Hague





“Co-funded by the Prevention of and Fight against Crime Programme of the European Union”



*Likelihood Ratios (LRs) are widely accepted as a measure for the strength of evidence. But, LR calculation in forensic casework can still be a challenge. Not always is clear what model(s) to use, and then often no software is available, scripts are quickly written or calculations are based on hardly validated scripts of others. SAILR is a user-friendly interface (GUI) around newly developed free software for forensic experts to calculate LRs.*

### Introduction

SAILR, software for the analysis and implementation of Likelihood Ratios, is developed within an ENFSI monopoly 2013 project. The project started as a result of international growing demand for scripts to calculate LRs in various situations. Previously written scripts in various countries often have limited usage for a small group of experts in very specific cases. These scripts are in most cases not or only partly validated. Also it is not always clear how calculations are performed. Therefore it was decided, within an international collaboration, to combine existing scripts and use these to validate and harmonize each other scripts, and build a new software package in java: SAILR in java from scratch. The software and the statistical models are all discussed in detail and agreed upon before they were incorporated in SAILR. As a result, currently SAILR contains a few well documented models (focus outside DNA) with corresponding manual. In future this will be extended.

Within this workshop we start with giving some background information on SAILR and a short description of LR theory. Then in steps, each starting with a little theory, you can practice with SAILR. Example data will be provided, and there will also be plenty opportunity to try out SAILR with own data and to ask questions. A manual of SAILR will be provided.

### Tentative schedule

Monday May 8

- Presentation of the SAILR software
- LR theory
- Data input
- Practice with data input
- Feature-based models
- Practice with feature-based models

Tuesday May 9

- Score-based models
- Practice with score-based models
- Validation and performance
- Practice
- Evaluation and Future prospective



### SAILR members

This workshop is offered by the members of the MP2013-T6 SAILR project, of which some will give a presentation:

- Annabel Bolck (Netherlands Forensic Institute)
- Leon Aronson (Netherlands Forensic Institute)
- Dennis Steenhuis (University of Groningen)
- Anders Nordgaard (National Forensic Centre, Sweden)
- Greg Zadora (Institute of Forensic Research, Poland)
- Colin Aitken (University of Edinburgh)
- Amy Wilson (University of Edinburgh)
- David Lucy (Lancaster University)
- Tereza Neocleous (Glasgow University)
- Petter Mostad (Gothenburg University)

### Target group

Forensic experts that have some knowledge of Likelihood Ratios as a measure for the strength of evidence and that are (thinking of) using this in their forensic practice. DNA is not covered in the software.

### Dates

May 8 and 9, 2017

### Location

Netherlands Forensic Institute in The Hague, The Netherlands

### Number of participants

12-30

### Cost

€ 95 per person (no VAT). This is for lunch/coffee/tea during both days, and the workshop dinner on Monday the 8th.

### Other information

- Please bring your own laptop running Windows (or equivalent virtual machine).
- Software needs to be installed.

### Registration

For more information about registration for the workshop, please visit the workshop website at <http://academy.forensicinstitute.nl/sailr/>