

# Highlights:

Probabilistic analysis is integrated with the software product line analysis.

It is possible to detect using probabilistic information, the most common components among the valid products of the software product line.

It is possible to hide the features not analyzed by the probabilistic extension in the feature model.

The probabilistic analysis of software product lines is several times more efficient than traditional analysis.

The probabilistic analysis can save time and resources when processing feature models and software product lines.