

Lina: An EDSL for Threat Analysis

```
SEQ("external sensor attack",0.6)
  ("modify street signs to cause wreck",0.2)
  (AND("social engineering attack",0.6)
    ("pose as mechanic",0.6)
    ("install malware",0.1))
```

```
SEQ("over night attack",0.8)
  ("Find address where car is stored",0.05)
  (SEQ("compromise vehicle",0.8)
    ("break window",0.8)
    ("install malware",0.1))
```

```
SEQ("over night attack",0.5)
  ("Find address where car is stored",0.05)
  (SEQ("compromise vehicle",0.5)
    ("disable door alarm/locks",0.5)
    ("install malware",0.1))
```

Future Work

Two new new formal model of causal attack trees:

- Petri Net Model
 - Categorically shown that this is a model of linear logic
- Causal Attack Tree Expressions
 - Attack trees as “regular” expressions in Pomset automata based in the concurrent Kleene algebra