

ȘTEFAN MINICĂ

DYNAMIC LOGIC OF QUESTIONS

The background of the slide is a collage of various mathematical and logical documents, including:

- Code snippets in a programming-like language, such as:

```
type Event a = a -> Bool
newtype Probability = P Prob
type Probabp = Float
newtype Dist a = D (mD :: (a -> Probabp))
instance Monad Dist where
  instance Monad Dist where
    Dist where
      D ((f x, p) | (x,p) <- d)
```
- Formal logic formulas and their display representations:

DELQ.hs	Formula	Display
$\text{beg } (Qa) \text{ } \Omega \text{ } a \text{ } \text{beg } p \text{ } \Omega$	$\neg(Qa \wedge \neg p)$	"!(Qa, 'p)"
$\text{Dix} \text{ } \Omega \text{ } (x \text{ } a \text{ } \text{Prop } \Omega \text{ } \Omega) \text{ } p$	$R_p \rightarrow p$	"v('Rop, 'p)"
$\text{Dix} \text{ } \Omega \text{ } (x \text{ } a \text{ } x \text{ } \text{beg } p \text{ } \Omega)$	$K_p \vee \tilde{K}_p \rightarrow p$	"v(Kop, 'Rx' 'p)"
$\vee (\text{Dix} \text{ } \Omega \text{ } b \text{ } a \text{ } \text{beg } p \text{ } \Omega)$	$E(Qa \vee Qa \neg a)$	"v(Dop, 'Qa' 'p)"
$\vee (\text{Dix} \text{ } \Omega \text{ } (p \text{ } \Omega) \text{ } x \text{ } a \text{ } \text{beg } p \text{ } \Omega)$	$E(\neg a \wedge R, K_p)$	"v(xt, 'Rop)"
- Mathematical diagrams, including a tree diagram with nodes labeled 1, 2, 3 and arrows indicating transitions.
- Textual explanations and proofs, such as "The Minimal Quantification Problem" and "Axiomatic Probability: Semi-epistemic Model".
- Equation blocks involving summations and probabilities, such as $P(x) = \sum_{i=1}^n P_i(x)$.
- Flowcharts and state transition diagrams.