

## Class 8

### (Im)Patience; Hazard Rates.

#### Defining, Measuring and Modelling (Im)Patience

- Hazard Rate functions: dynamic characterization of a distribution.
- Censored Sampling; Estimating (Im)Patience.
- Laws of (Im)Patience for *Service Systems with Abandonment* :

The Law of Consistent Incentives: “Abandoning” Service-providers;

The Law of the “Fittest-survive” (and Wait Less - Much Less);

The Linear Law of Abandonment-rates for (non-optimizing) Customers;

Palm’s Law of Irritation (Survival-functions and Hazard-rates);

(The) Impatience/“Loyalty” Index;

The Law of Information-shocks,

(or The Phases of Patience: Optimism, Facing Reality, Accepting Reality);

(or The Phases of Patience: Customers’ Heterogeneity).

The Adaptivity/Learning Cycle (Anticipation, Experience, Perception,...).

**Recitation 8.** Forecasting arrivals (demand for service).

**HW 7:**, “Statistical Analysis of Arrival and Service Processes”.

**Recitation 9: Patience Estimation. Phase-Type Distributions.**