Possibility theory : from qualitative to quantitative aspects

1. The concept of possibility: some intuitions and historical landmarks: GShackle, David Lewis, Zadeh

2. Representing incomplete information
2.1. epistemic vs. aleatory uncertainty
2.2 set-valued representations of epistemic uncertainty
2.3 Boolean possibility and necessity
2.4 relation to classical and modal logic
2.5 Comparative possibility
2.6 Graded possibility distributions as epistemic fuzzy sets
2.7 The principle of minimal specificity.
2.8 Non-interactive possibilistic variables and the possibilistic understanding of the extension principle.
2.9 The four set-functions: potential vs. actual possibility
3. Qualitative possibility
3.1 Possibilistic logic
3.2 Qualitative conditioning
3.3. Connection to non-monotonic reasoning and belief revision
3.4 Connection to infinitesimal probabilities and Spohn ranking functions
3.5 Qualitative possibilistic decision theory and Sugeno integral
4. Quantitative possibility
3.1 Possibility and similarity: representing linguistic information
3.2 Possibility distributions as nested random sets: Dempster conditioning
3.3 Possibility measures as upper probabilities: Bayesian conditioning.
3.4 Possibility distributions and likelihood functions
3.5 Possibility distributions as generalized cumulative distributions
3.6 Possibility-Probability transformations: subjective possibility
3.7 Probability-possibility transformations: dispersion intervals
5. Conclusion