

Contents

1	Introduction	1
2	Non-adaptive Stopping Rule	2
2.1	Preliminaries	2
2.2	Bernoulli Selection Lemma	2
2.3	Main Theorem	10
3	Prophet Inequality for I.I.D. Distributions	15
3.1	Preliminaries	15
3.2	Properties of the Threshold Rule	16
3.3	Main Theorem	22
4	Applications to Mechanism Design	25
4.1	Preliminaries	25
4.2	Reduction to Pricing	27
4.3	Non-adaptive Posted Price Mechanism	29
4.4	Adaptive I.I.D. Posted Price Mechanism	32
	Bibliography	35