There are many situations in which present actions must be made and resources allocated with incomplete knowledge of the future. Online optimization typically compares the performance of a strategy that operates with no knowledge of the future (on-line) with the performance of an optimal strategy that has complete knowledge of the future (off-line). In some cases, partial information about the future may be learnable and lead to provably better online algorithms. In this talk, we provide recent results obtained from that perspective on a simple online resource allocation problem where the sequence of arrivals (requests) contains both an adversarial component and a stochastic one.

BIO:
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