

## Recall 6

### What about no-free lunch with vanishing risk

1. When is a set said to be Fatou-closed?
2. If  $C_0(\mathbb{F}, \mathbb{P})$  is Fatou-closed, what can you say about  $C(\mathbb{F}, \mathbb{P})$ ? Can you prove it?
3. Let  $A \subset \mathbb{L}^0(\mathbb{R}, \mathcal{F})$ . When is a random variable  $a \in A$  called maximal in  $A$ ?
4. Which result do we have between  $\mathcal{X}_1(\mathbb{F}, \mathbb{P})$  and  $C_0(\mathbb{F}, \mathbb{P})$ ? Can you prove it?
5. What is the  $P - UT$  property?
6. When do we have convergence for the  $(\mathbb{F}, \mathbb{P})$ -Émery topology?

### Super-hedging duality

1. When is a market called complete?
2. Can you state the theorem of the super hedging duality?