

**1 Proof:**  $E\left\{\sum_0^\infty X_i^+\right\} = \sum_0^\infty \left\{E(X_i^+)\right\}$

- 1.  $\sum_1^N E(X_i) = E(\sum_1^N X_i)$  for all N

2.  $|\sum_1^N X_i| \rightarrow |\sum_1^\infty X_i|$

3. Now abs conv. implies conv. so