STABLE LIMITS FOR MARKOV CHAINS

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We shall discuss several open (up to our knowledge) problems related to limit theorems for instantaneous functions of Markov chains with stable limits.

These include, among others:

- Lack of regularity assumptions in the Central Limit Theorem for ARCH(1)/GARCH(1,1) with infinite variation.
- Minimal form of compactness assumption imposed on the transition operator.
- What happens in the slot between geometric ergodicity and the L^2 -spectral gap property?