

# Learning and Agreeing to Disagree Without Common Priors

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## Abstract.

We study the question of Common Knowledge and Agreeing-To-Disagree first discussed in the seminal paper of Aumann (1976) in a dynamic framework which is a generalization of Geanakoplos and Polemarchakis (1982). We replace the Common Prior Assumption typically used in this literature with a generalization which merely requires that agents' priors satisfy an ex ante mutual absolute continuity condition. We obtain conditions for beliefs to converge. We show that beliefs and actions become common knowledge in the limit. We also discuss what happens to the Agreeing-To-Disagree results when priors are not common. In particular we show that limiting beliefs or actions or "announcements" equal that resulting from the (not necessarily common) prior conditional on common observations.

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