Convergence and \mathcal{L}^p estimate of generalized ergodic averages

Mario Stipčić University of Zagreb

We discuss paraproduct-type bilinear operators that generalize ergodic averages as well as martingales. We establish their \mathcal{L}^p convergence for a certain range of exponents while discussing \mathcal{L}^p estimate of each bilinear operator and pose an open question about their a.e. convergence.