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Cristian Giardinà and **Shannon L. Starr*** (ssstarr@math.ucla.edu), UCLA Mathematics Department, Box 951555, Los Angeles, CA 90095-1555. *Variational Bounds for the Random Energy Model.*

Guerra's proof of the upper bound for the Sherrington-Kirkpatrick model was a landmark result in progress towards the full proof of Parisi's ansatz (by Talagrand). Although the REM is easily solved by other means, it is a pedagogical problem to also establish similar bounds for it. Here we do that, using the approach of Aizenman, Sims and –, using one new trick: positivity of the entropy. This could be of more than just pedagogical interest ... as I may argue. (Received February 27, 2006)