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Quantitative Analysis of Interactions in an Online Physics Classroom for High School Teachers[1] REECE RIHERD, University of Texas at Austin, BAHAR MODIR, ROBYNNE LOCK, WILLIAM NEWTON, Texas AM University - Commerce — In this study, we take quantitative measures to investigate community engagement in a course about computational waves that is offered as part of an online Master of Physics with teaching emphasis (MPTE) program for high school teachers. Students are required to participate in weekly discussion boards by making posts and replying to other posts to discuss relevant content. We used a pre-existing categorization scheme to analyze interactions in the discussion boards throughout the semester. We found some themes varied from week to week in response to the specific week's course structure, and some appeared more consistently. We further analyzed the interactions taking a social network analysis (SNA) approach to identify active members through degree centrality measures. We will outline future plans for the application of other SNA measures to our community.

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