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Tutorials on Angular Momentum in Quantum Mechanics PAUL EMIGH, GINA PASSANTE, PETER SHAFFER, University of Washington — As part of our examination of student understanding of quantum mechanics, the Physics Education Group at the University of Washington has probed student ideas related to angular momentum. Results from interviews and long-answer questions administered in a junior-level course for physics majors have revealed significant difficulties. For example, even after lecture instruction, many students use reasoning appropriate to classical mechanics rather than quantum mechanics. There is also substantial confusion between the different symbols, notations, and representations associated with angular momentum. We have developed a sequence of two tutorials to address these difficulties, modeled on *Tutorials in Introductory Physics,* the materials our group is developing for introductory physics courses. Results from pre- and post-tests suggest that this pair of tutorials can help improve student understanding of angular momentum, but there is still more that can be done.

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