

Abstract Submitted
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Fragmentation and Phase Manipulation Studies of Bose-Einstein Condensates using Computer-Generated Holograms BRIAN ANDERSON, DAVID SCHERER, CHAD WEILER, TYLER NEELY, College of Optical Sciences, University of Arizona — Computer-generated holograms (CGHs) and diffractive optical elements can be used as tools to manipulate Bose-Einstein condensates with tailored optical fields of arbitrary profiles. Using CGHs designed and created at the College of Optical Sciences, we are investigating phase manipulation and fragmentation dynamics of Bose-Einstein condensates in combined optical and magnetic trapping fields. We will briefly summarize our CGH creation technique and report on the progress of our experiments with Rb-87 Bose-Einstein condensates.

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