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REU in Physics at Kansas State University— an Evolving Program[1] KRISTAN CORWIN, BRUCE GLYMOUR, AMY LARA, LARRY WEAVER, DEAN ZOLLMAN, Kansas State University — The REU site in the Physics Department at Kansas State University, funded by NSF for 13 years between 1992 and 2007, originally focused on atomic collision physics. Now the theme has broadened to include laser-matter interactions on atomic and nanoscales, and an ethics component is incorporated. Students study how atoms and molecules interact with ultra-fast optical and x-ray pulses, reveal the structure of nanoparticle crystallization and gel formation with scattered laser light, and develop computer codes for atomic interactions in Bose-Einstein condensates and nanoparticle self-assembly from lattices to gels; some have traveled to Japan for neutrino experiments. The students we select come primarily from smaller colleges and universities in the Midwest where research opportunities are limited. Prof. Weaver, who has served as PI since 1992, facilitates their transition from a teaching to research environment through lectures and individual interactions. Our program is in a period of transition. While Prof. Weaver continues to be the "impedance match" between students and mentors, other leadership roles are gradually being assumed by a team of faculty members who strive to preserve the intimacy and excellence of the program.

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Kristan Corwin
Kansas State University

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