Monte-Carlo Methods for Artificial Intelligence: A Short Course  
March 18-22, 2013, Corvallis, Oregon  
http://www.eecs.orst.edu/mcai

Following the previous year's highly successful short course, the National Science Foundation and Oregon State University are sponsoring another all-expenses paid short course on Monte Carlo algorithms.

Monte Carlo methods are search algorithms based on repeated random sampling. Originally invented in physics to optimize nuclear reactions, they are used in many fields such as computational biology, finance, astrophysics, and microelectronics. They are creating big advances in Artificial Intelligence, including the first master-level play in Go, and excellent performance in Solitaire and other games. Monte Carlo methods are also being applied to many more practical problems such as robot planning, species conservation, weather forecasting, and air traffic control.

Monte Carlo methods are naturally parallel, simple to implement, and appear to perform better or comparably to other more complex approaches. There are many open research problems including some fundamental ones such as why and when they work well.

Applicants should be US citizens or permanent residents with a preference to historically under-represented groups in computer science (women, minorities, first generation to attend college). They should be in the second or third year of their undergraduate degree and should have prior experience in programming. Background in Artificial Intelligence is not required. The course runs from March 18 to 22 in the beautiful town of Corvallis. We will provide accommodation, airfare, computer access, high quality interactions, and technical presentations.

If you are interested or have questions, please visit:  
http://www.eecs.orst.edu/mcai.

Applications are due by December 20, 2012.