1056-76-1971 **Xiaoming Wang***, Department of Mathematics, Florida State University, Tallahassee, FL 32306. *Approximating long time statistical properties of large chaotic systems.*

It is known that physical laws for many large chaotic dynamical systems arising in fluid dynamics are revealed statistically. We present recent progress as well as existing challenges on how to approximate these long time statistical properties for a few fluid problems. (Received September 22, 2009)