1127-91-62 **Dan Pirjol** and **Lingjiong Zhu*** (zhu@math.fsu.edu), 1017 Academic Way, Room 208, Tallahassee, FL 32306. *Short Maturity Asian Options in Local Volatility Models.*

We present a rigorous study of the short maturity asymptotics for Asian options with continuous-time averaging, under the assumption that the underlying asset follows a local volatility model. The asymptotics for out-of-the-money, in-the-money, and at-the-money cases are derived, considering both fixed strike and floating strike Asian options. The asymptotics for the out-of-the-money case involves a non-trivial variational problem which is solved completely. We present an analytical approximation for Asian options prices, and demonstrate good numerical agreement of the asymptotic results with the results of Monte Carlo simulations and benchmark test cases in the Black-Scholes model for option parameters relevant in practical applications. (Received January 17, 2017)