1062-53-61   **Xiangwen Zhang*** (`xzhang@math.mcgill.ca`), Department of Mathematics and Statistics, McGill University, 805 Sherbrooke W., Burnside Hall, Room 1020, Montreal, Quebec H3A 2K6, and **Sławomir Dinew** and **Xi Zhang**. *$C^{2,\alpha}$ estimate for the complex Monge-Ampére equation.*

In the talk a regularity result for the complex Monge-Ampère equation will be presented. We will prove that any $C^{1,1}$ plurisubharmonic solution u to the problem $\det(u_{i\bar{j}}) = f$ with f strictly positive and Hölder continuous has in fact Hölder continuous second derivatives. For smoother f this follows from the classical Evans-Krylov theory yet in our case it cannot be applied directly. To generate this $C^{2,\alpha}$ regularity estimate in the Hermitian setting, we will give the Bedford-Taylor interior C^2 estimate and a local version of the Calabi C^3 estimate on Hermitian manifolds. (Received July 22, 2010)