## 1107-35-276 **Rafael de la Llave\***, 686 Cherry St., Atlanta, GA 30332, and **Yannick Sire**. An a-posteriori KAM theorem that applies even to ill-posed Hamiltonian PDE.

We consider the existence of quasi-periodic solutions in Hamiltonian PDE. We formulate an invariance equation for an embedding. We show that if there functions that satisfy this equation up to an small error and that they satisfy some non-degeneracy conditions, then, there is a true solution close to the approximate one.

Note that this does not require that the PDE is well posed.

We present some applications to some well known ill posed equations. (Received January 17, 2015)