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Rafael de la Llave* (r116@math.gatech.edu) and **Yannick Sire**. *An a-posteriori KAM theorem that applies even to some ill posed equations.*

We formulate the existence of quasi-periodic solutions for an evolutionary equation as the existence of solutions to a functional equation for a parametrization of the solutions. We present an abstract theorem that shows that if there are approximate solutions of this functional equation that satisfy some non-degeneracy conditions, then, there are true solutions close by. We present applications to the Boussinesq equation and the Boussinesq system. The method also leads to efficient algorithms. (Received August 24, 2015)