

colloquium

Applications of the Nash-Moser theorem

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時 間：102 年 11 月 6 日（三） 2：30 pm

地 點：應用數學系多媒體教室（理 408 室）

摘 要：

The existences of periodic and quasi-periodic solutions for Hamiltonian PDEs are difficult because of the small divisors. Nash-Moser theorem is one kind of useful approaches to the infinite dimensional problem without a bounded inverse. Today, we will introduce two applications of the Nash-Moser theorem. In the first part of this talk, it will be shown how to use a Lyapunov-Schmidt reduction scheme to construct a Cantor family of periodic solutions for a nonlinear wave equation. The second part is the unfinished joint work with Professor Walter Craig and Dr. Carlos Gracia-Azpeitia. We try to apply the method to construct a quasi-periodic standing wave for n -corotating filament.