Abstract:
Spectra of periodic operators are known to consist of a collection of non-intersecting closed intervals called bands, separated by spectrum-free intervals called gaps. It is an important mathematical and physical issue to find out if the number of the gaps is finite. It has been conjectured by Bethe & Sommerfeld in the 30's that the spectrum of the Schroedinger operator with a periodic electric potential must have only a finite number of gaps. A rigorous proof of this hypothesis was given only in the 80's. The aim of the talk is to present a new, simpler proof of the result, which combines ideas from number theory with the technique of pseudo-differential operators.

Friday, March 12, 1999
3:00 PM in 335 Jabara Hall

Please come join us for refreshments
before the lecture at 2:30 p.m. in room 353 Jabara Hall.