“Clifford analysis and some Riemann boundary value problems”

Abstract:
In this talk, we will introduce Riemann boundary value problems for a kind of fourth-order elliptic equation i.e., $(\Delta^2 - k^2 \Delta)u = 0$. In the framework of a Clifford algebra $C/(V_{3,3})$, we obtain factorizations of the fourth-order elliptic equation and construct kernel functions. Some integral representations formulae in Clifford analysis are presented. Combining the above results and generalized Plemelj-Sokhotsky formulae, we prove that the Riemann boundary value problem for the fourth-order elliptic equation is solvable. The explicit representation formula of the solution is also obtained.

Friday, March 16, 2018
3:00 PM in 372 Jabara Hall

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