SEMINAR
CENTER FOR APPLIED MATHEMATICS AND SCIENCE
DEPARTMENT OF MATHEMATICS
UNIVERSITY OF WEST GEORGIA

1:00 PM, WEDNESDAY, OCTOBER 17, 2012, BOYD 306

Speaker: **Dr. Vu Kim Tuan, Department of Mathematics, UWG**

Title: **Interpolation and Sampling in the Hardy Space II**

Abstract: In this sequential talk we will give a proof of the following result:
Let $\{p_k\}_{k=1}^{\infty}$ *be a sequence of real numbers on* $(0, \infty)$*, that is either convergent to* $p \in (0, \infty)$*, or* $p_k = \alpha k + \beta$ *for some* $\alpha, \beta > 0$*, and any* $k > 0$*. Let* $F(z)$ *be a Hardy function on the right-half plane. Put*

$$F^*_{A_n}(z) = \sum_{k,l=1}^{n} F(p_k) \frac{\widetilde{a}^n_{kl}}{z + p_l}, \tag{1}$$

where

$$\tilde{a}^n_{kl} = \frac{\prod_{j=1}^{n} [(p_k + p_j)(p_l + p_j)]}{(p_k + p_l) \prod_{j=1, j \neq k}^{n} (p_k - p_j) \prod_{j=1, j \neq l}^{n} (p_l - p_j)}. \tag{2}$$

Then

$$\lim_{n \to \infty} F^*_{A_n}(z) = F(z), \quad \Re(z) > 0, \tag{3}$$

where the convergence is pointwise and in the Hardy space norm.

All are welcome.