IMIA Operator Algebra Seminar
University of Wollongong

Title: The fundamental group of a topological graph

Speaker: Valentin Deaconu (University of Nevada at Reno)

Time and Dates: 3:30pm, Thursday October 6th and 13th, 2011

Location: Room 15.113 (access grid room)

Abstract: The fundamental group $\pi_1(E)$ of a topological graph $E = (E^0, E^1, s, r)$ is defined using a single space $R(E)$, called the geometric realization. This is a kind of double mapping torus, which we assume to have a universal covering space $\tilde{R}$. It turns out that $\tilde{R} \cong R(\tilde{E})$, where the topological graph $\tilde{E}$ is a universal covering space for E. Any subgroup H of $\pi_1(E)$ acts on $\tilde{R}$, and the corresponding topological graph of the quotient $\tilde{R}/H$ is a covering of E. Several examples will be considered, one involving the Baumslag-Solitar group with two generators a, b and one relation $ab^n a^{-1} = b^m$.