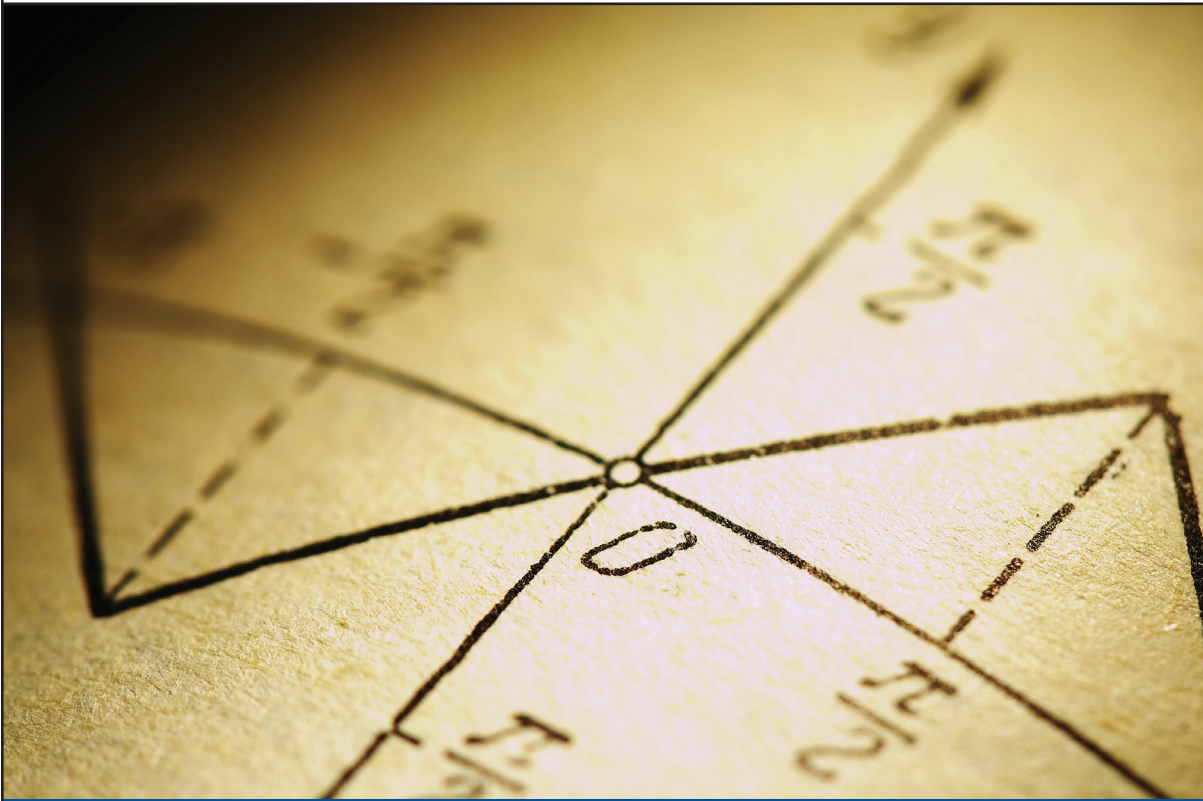Join **Professor Heydar Radjavi**, Department of Pure Mathematics, University of Waterloo, as he explores

Can Values of a Single Function on a Group of Operators Give Away its Structure?

Let A denote the algebra of all linear operators on a complex vector space V—mostly finite-dimensional for the purposes of this talk. Let G be an irreducible group or semigroup contained in A. (This means that there is no subspace of V other than {0} and V itself which is invariant under all the members of G.)

If f is a given linear functional on A, let us denote by f(G) the set of all values of f when restricted to G. Does information about f(G) shed any light on the structure of G itself? Certain properties of f(G), its finiteness or boundedness, for example, are known to imply the corresponding properties for G. We discuss some of these properties, with particular emphasis on the newest results which give the complete structure of G when f(G) is "very small."

Monday, April 13, 2015 | 12:00-12:50 pm
W565, Fine Arts Building, University of Lethbridge
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