

# COLLOQUIUM

## The Analytic Hierarchy Process

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The Analytic Hierarchy Process (AHP) is a mathematical theory for the measurement of intangibles in the form of priorities that include importance, preference and likelihood all derived from our innate psychophysical ability to make comparisons. It is based on eigenvalue- analysis both in discrete (with inconsistent judgments) and continuous form derived from Fredholm's equation of the second kind. It is generalized to networks (ANP) including neural nets (NNP). In the latter case solutions are derived in four division algebras the reals, complex, quaternion and octonion domains. The Fourier transforms in the space-time dimensions is taken. For quaternions people have used Fourier Clifford transform and little is known about transforms for octonions. Applications in decision making are made particularly with respect to resource allocation and conflict resolution.

The lecture will take place in Thackeray 704 at 3:30pm.  
Refreshments will start at 3:00pm.