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## Resonances in coupled-channel scattering from lattice QCD

*Wednesday 15 March 2017 11:00 (30 minutes)*

“The majority of excited hadrons are seen as resonances in the scattering of lighter stable hadrons like pions and kaons. Many resonances decay into multiple final states necessitating coupled-channel analyses, and recently it has become possible to obtain coupled-channel scattering amplitudes from lattice QCD. I will describe one of these calculations, beginning with the computation of the finite-volume spectra, that are used to constrain infinite-volume scattering t-matrices, from which the complex resonance poles can be extracted. Several recent applications of these methods will be described, including the first extraction of a strongly-coupled coupled-channel scattering amplitude from lattice QCD where an  $a_0$  resonance was found in  $\pi$ - $\eta$   $K$ - $\bar{K}$  scattering.”

**Presenter:** Mr WILSON, David (University of Cambridge)

**Session Classification:** Session