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## Time Scales in Nuclear Giant Resonances

A many-body approach is used to investigate the regular patterns in scales found in a wavelet analysis of giant resonance fine structure. Our study suggests that the spreading widths of collective excitations in nuclei are determined by the number of fragmentations seen in the power spectrum of the scales.

**Primary author:** Prof. HEISS, W.D. (National Institute for Theoretical Physics, Stellenbosch Institute for Advanced Study, and Institute of Theoretical Physics, University of Stellenbosch, 7602 Matieland, South Africa)

**Co-authors:** Dr SMIT, Frederick David (iThemba LABS, , PO Box 722, Somerset West 7129, South Africa); Prof. CARTER, J. (School of Physics, University of the Witwatersrand, PO Wits, Johannesburg 2050, South Africa); Prof. NAZMITDINOV, R.G. (2Department de Fisica, Universitat de les Illes Balears, E-07122 Palma de Mallorca, Spain 3Bogoltubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research, 141980 Dubna, Russia); Prof. FEARICK, R.W. (Department of Physics, University of Cape Town, Rondebosch 7700, South Africa)

**Presenter:** Dr SMIT, Frederick David (iThemba LABS, , PO Box 722, Somerset West 7129, South Africa)

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