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# Seminário Luiz Adauto Medeiros de Análise e EDP

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IM-UFRJ, CT sala C-116

## Concentration effects of $H$ -measures in different Ergodic settings

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**Resumo:** The  $H$ -measure was introduced independently by L. Tartar, P. Gerárd and improved by E. Panov. It is a default measure which quantifies, in the phase (i.e. the physical space times the Fourier space of propagation directions), the lack of compactness of weakly converging sequences. In this work, we address the task to reckon the  $H$ -measure generated by functions in known ergodic algebras, that is, in the almost periodic and in the weakly almost periodic algebras. We shall see that the  $H$ -measure generated by a function in these ergodic algebras has the same structure of one which is periodic: The direction of the Fourier variable  $\xi$  is a purely atomic measure. But this atomic behavior seems to be very restricted to the algebras of the “periodic families”. Precisely, we shall computer the  $H$ -measure generated by a ergodic function which is beyond the weak almost periodic setting and its corresponding  $H$ -measure has a structure completely different: the direction of the Fourier variable  $\xi$  is a measure absolutely continuous with respect to Lebesgue measure.



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