



UNIVERSITÀ DELLA CALABRIA

DIPARTIMENTO DI  
MATEMATICA  
E INFORMATICA

Dipartimento di Matematica e Informatica

# Avviso di Seminario

*Venerdì 15 dicembre 2017 – ore 15:00*

*Aula MT11 – cubo 30B primo piano*

*Dr. Giuseppe Pirillo*

terrà un seminario dal titolo:

*Fibonacci Words and Hippasus Numbers*

**Abstract:**

*This talk is about the properties of Fibonacci numbers. We first remember the content of a famous result of Knuth Morris and Pratt on an algorithm for searching a word in a given text. The efficiency of this algorithm depends on a property of Fibonacci words. FWs are a source of ideas for valuable results for the more general class of Sturmian words. I give some examples of generalizations we have proved. Finally, I draw attention on two hypothesis*

- a) a Pythagorean identity which concerns the side and the diagonal of the regular pentagon and the identity of Cassini were “almost simultaneously” discovered by the Pythagorean School*
- b) Pythagoreans introduced Hippasus numbers.*

*We define explicitly Hippasus numbers and prove that they coincide with Fibonacci numbers. We present solid mathematical arguments that make a) and b) highly probable.*

Il Direttore del Dipartimento  
*prof. Nicola LEONE*