

# RELACIÓN DE ESTUDIANTES QUE VISITARÁN LA CSUCI, JUNTO CON TEMA A EXPONER

NOMBRE	TEMA A EXPONER
Juárez Zamora <b>Anabel</b>	<p><b>Explicit Formulation of Fibonacci's Numbers</b></p> <p><b>Abstract.</b> In elementary mathematics there are many interesting yet difficult problems which have become part of the "math folklore". Many of these problems are of great theoretical interest besides their recreational value. This is the case for the numerical sequence known as Fibonacci's numbers. These numbers can be deduced with a recursive relation. However, if we want to calculate the <math>n^{\text{th}}</math> Fibonacci's number, we have to calculate the <math>n-1</math> previous numbers. In this talk we will deduce a formula to calculate the <math>n^{\text{th}}</math> number directly.</p> <p><b>Plankton: A growth model</b></p>
Villeda Roldán <b>Angélica</b>	<p><b>Abstract:</b> In the past, the marine studies were an exclusive work of the developed countries. In our days and for many reasons - one of them the overexploitation of the marine resources-, most of the countries take part in the study of the oceans. In this talk, I will explain a plankton growth model, a set of small organisms, most of them invisible to simple sight, which float in sweet or salty waters and which provide, directly or indirectly, feed for almost all the animals who inhabit these waters.</p> <p><b>Rosenfeld's Theorem and the Digital Topology</b></p>
Hernández Trejo <b>Bertín</b>	<p><b>Abstract:</b> Digital Topology has arisen in order to study geometric and topological properties of digital images. Rosenfeld's Theorem is an analog of the Jordan Curve Theorem, only in the digital plane (<math>\mathbb{Z} \times \mathbb{Z}</math>), and is an important tool in the development of Digital Topology. In this talk we will define the basic terms needed to state Rosenfeld's Theorem, and show some examples.</p> <p><b>¡Cálculáte una distancial!</b></p>
Canales Licona <b>Diana Xochitl</b>	<p><b>Abstract:</b> In this talk and poster we try to approach the problem to find expressions for the distance of a given complex square matrix, which is not normal, to the set of the normal matrices.</p>
Téllez Téllez <b>Iván</b>	<p><b>Póster: El Calendario Maya Plática: Numeración Maya</b></p>
Romero Ayala <b>Rubí</b>	<p><b>Abstract:</b> The Maya civilization has become known due to their knowledge, with this brief talk we will try to show (remember) the Mayan talent to construct a numeration system using the concept of the number zero. This talent took them to construct intellectual works like their calendar, arithmetic, architecture, among other amazing things.</p> <p><b>The Stone of the Sun (Some forms of measuring the time)</b></p>
Vargas Manzano <b>José Aurelio</b>	<p><b>Abstract:</b>For centuries men have invented different forms to measure time, using different techniques, some of them more complicated than others. The objective of this talk is to present how the Aztec culture measured the course of the time.</p> <p><b>Self-Similar Sets</b></p>
Olvera Hernandez <b>Miguel Ángel</b>	<p><b>Abstract:</b> In this talk we will define a self-similar set on a metric space and show the existence and <b>uniqueness</b> of this set.</p> <p><b>Series de Tiempo</b></p>
	<b>Abstract: RESUMEN</b>
Franco Mejía <b>Ana Cecilia</b>	<p>Mucha información acerca de las características económicas se recopila con fines de análisis, para llevar a cabo la planeación y toma de decisiones. Una herramienta que se puede utilizar para estos fines son las series de tiempo.</p> <p>En esta platica se dará una breve introducción a las series de tiempo y se mencionaran algunos ejemplos.</p>

### Analysis of water consumption in the Pachuca Valley

Grande Sánchez  
Simón

**Abstract:** An analysis of water withdrawal in Pachuca, Hidalgo is performed, and it is used to develop a differential model, whose main application is intended to prevent using water beyond its renewable capacity. We look at the four major components of water consumption: Municipal, Industrial, Commercial, and Public Service uses. A differential model is formulated to account for the rates of change of these uses, and how this changes would affect the overall consumption of water within the studied region.

### Cómo calcular la prima de un Seguro

### Utility theory and insurance

Pérez Zúñiga  
Yolanda

**Abstract:** The insurance industry exists because people are willing to pay a price for being insured that they will get an amount (in case of a loss) which is higher than their expected claim. In order to do that, an insurance company collects a premium that is larger than the expected claim size.

In this presentation, we sketch an economic theory that explains why insured people are willing to pay a premium that is larger than the net premium, i. e., the mathematical expectation of the insured loss.

Valdés Rabling  
Fernando

### Mirando el Arte con ojos Matemáticos

**Abstract:**

\*Todos eligieron la playera de color **AZUL**, por unanimidad