

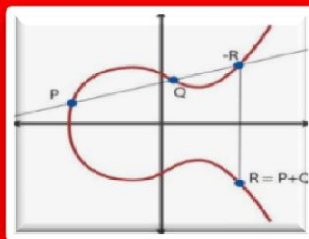


Online Workshop on ALGEBRAIC NUMBER THEORY

31 August-5 September, 2020

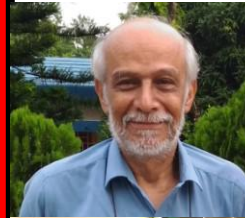
$$x^n + y^n = z^n$$

$$\lim_{s \rightarrow 1} (s-1)\zeta_K(s) = \frac{2^{r_1} \cdot (2\pi)^{r_2} \cdot \text{Reg}_K \cdot h_K}{w_K \cdot \sqrt{|D_K|}}$$



Organised by
Department of Mathematics,
Assam University, Silchar
Supported by UGC (SAP) DRS-II

Resource Persons



Prof. Rajat Tandon (Retd.)
School of Mathematics and Statistics
University of Hyderabad



Prof. Kalyan Chakraborty
HRI, Prayagraj,
Director designate,
Kerala School of Mathematics



Prof. Anupam Saikia
Dept. of Mathematics and Computations
IIT, Guwahati

Prof. Tandon will discuss Fermat's last theorem (FLT) for polynomial rings. He will also prove FLT for $n=3$ illustrating the use of the basic algebra taught in a first course.

Prof. Chakraborty will discuss unique factorization of ideals in a Dedekind domain, ideal class group and finiteness of the class number for the ring of integers of an algebraic number field.

Prof. Saikia will introduce the basic theory of elliptic curves in his first two lectures. Then he will discuss elliptic curve cryptography and highlight some results and open questions associated with elliptic curves.

Prerequisites : A first course in algebra, and preferably a first course in (algebraic) number theory.

Objective of the workshop

Algebraic number theory is a branch of mathematics that uses the techniques of abstract algebra in the study of number theory. During the twentieth century, especially in the last part of it, algebraic number theory has emerged as a prominent area in mathematics. The main objective of this workshop is to motivate M.Sc. students and young researchers of mathematics to take up research in this emerging area. Three major areas of algebraic number theory will be introduced by three of the best experts in number theory. After successful completion of the workshop, the participants should be prepared to take up research in any of these emerging areas. Teachers who are teaching algebraic number theory should also be benefitted from this workshop.

Co-ordinators

Prof. Samira Behera

Dr. Naba Kanta Sarma

Dr. Uday Shankar Chakraborty

For any information please feel free to write a mail to sbsap.aus@gmail.com or give a call to any of the following mobile nos.

9435073898, 7002794523, 9401440166.

About the department

For over two decades Department of Mathematics, Assam University, Silchar has been playing the role of a vanguard in teaching and research. Since its inception the department has brought forth many outstanding students who actively contributed in their respective fields of research and earned reputations throughout the globe. Presently the department offers M.Sc., M.Phil and Ph.D. in its academic curriculum. Many a student of this department has performed stupendously in various competitive examinations and have acquired their berths in many prestigious academic institutes. The Department is well supported by UGC (SAP- DRS-II), DST(FIST), and NBHM.

Applications must be submitted online through the link

https://docs.google.com/forms/d/e/1FAIpQLSeOUsr7MMnx0XaUYIOISGisH6TFtTC22rrYN43Mv9Vd5g_gug/viewform?usp=pp_url

Last date of applying: 25 August, 2020

There will be two lectures from 10 AM to 1:30 PM everyday. Participants will have to attend all the lectures to get the certificate.