Department of Mathematics Seminar

Small prime power residues modulo p

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Abstract: Let p be a prime number. For each positive integer k≥2, it is widely believed that the smallest prime that is a kth power residue modulo p should be $O(p^\epsilon)$, for any $\epsilon>0$. Elliott proved that such a prime is at most $p^{((k-1)/4+\epsilon)}$, for each $\epsilon>0$. In this talk we discuss the distribution of prime kth power residues modulo p in the range [1,p], with a more emphasis on the subrange $[1,p^{((k-1)/4+\epsilon)}]$ for $\epsilon>0$.

Date: 31 March 2021, Wednesday
Time: 17:00 - 18:30
Place: Zoom

To request the event link, please send a message to guloglua@fen.bilkent.edu.tr