Exposé court

126   *Ellipses and integer sequences*

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We suggest an extension to the work of Lucca [2]. Our goal is to examine chains of ellipses inside (outside) the branch of hyperbola, and we establish the recurrence relations of centers and minor (major) axes of the ellipse chains. As well as to determine conditions for these recurrence sequences that consist of integer numbers. We found more then fifty such integer sequences which appear in the On-Line Encyclopedia of Integer Sequences (OEIS [3]), and thus our investigation give them geometrical interpretations.
We mention that there are some sequences, i.e., [3, A098706], which have only definition and have not any combinatorial or geometry example. Our paper could provide a geometric interpretation for them.

This is joint work with Belbachir Hacène (RECITS Lab. CATI team, USTHB, Algeria) and Németh László (Institute of Mathematics, Univ. of Sopron Hungary, associated member of RECITS).

Bibliography

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