Cycle lengths in graphs of given minimum degree

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We present minimum degree conditions which forces a graph to contain a cycle of length ℓ modulo k for fixed k and ℓ. Our outcomes improve the results of Gao, Huo, Liu and Ma [1]. Consequently, we determine the maximum number of edges in a graph that does not contain a cycle of length 0 modulo k for odd k.

References

[1] J. Gao, Q. Huo, C. Liu, J. Ma, A unified proof of conjectures on cycle lengths in graphs, *International Mathematics Research Notices* (2022) (10) 7615–7653.