# Review of: "Integer topological proof of Dirichlet's theorem"

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Potential competing interests: No potential competing interests to declare.

Dirichlet's theorem on primes in arithmetic progressions is an important result, and a purely topological proof of this fact would be very interesting and surprising. Unfortunately though, I was not able to follow the argument in this paper. Some places where I became confused:

1. If I understand correctly, you are considering a topology on the set of all integers, rather than on the set of positive integers (which is where Golumb's original topology was defined). If 0 is an element of a set S(p,q) with (p,q) = 1, then p must divide q, hence p = +-1, and therefore S(p,q) = Z. This implies that the singleton {0} is dense, which seems to contradict Lemma 2.0.0.1(1).
2. I could not understand the statement of Theorem 2.0.1. In the statement, p and q are fixed, correct? What is n? Is the theorem stating that there is some n for which the closure of S^*(s(n),n) is contained in Z \ s_p?