

Abstract Submitted
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Non-resonant divertors for stellarators¹ ALLEN BOOZER, Columbia University, ALKESH PUNJABI², Hampton University — The outermost confining magnetic surface in optimized stellarators has sharp edges, which resemble tokamak X-points. The plasma cross section has an even number of edges at the beginning but an odd number half way through the period. Magnetic field lines cannot cross sharp edges, but stellarator edges have a finite length and do not determine the rotational transform on the outermost confining surface. Just outside the last confining surface, surfaces formed by magnetic field lines have splits containing two adjacent magnetic flux tubes: one with entering and the other with an equal existing flux to the walls. The splits become wider with distance outside the outermost confining surface. These flux tubes form natural non-resonant stellarator divertors, which we are studying using maps.

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²Alkesh Punjabi submitted an abstract with my name first. The name order on that abstract should be reversed.

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