

## **Vexillary Involutions are Enumerated by Motzkin Numbers**

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**Abstract.** Vexillary permutations are very important for Schubert Polynomials. In this paper, we consider the enumeration of vexillary involutions, that is, 2143-avoiding involutions. Instead of solving the generating function obtained by a succession system characterizing vexillary involutions, we establish a one-to-one correspondence with 1-2 trees enumerated by Motzkin numbers.

*Keywords:* bijection, generating tree, permutations with forbidden patterns, vexillary involutions, 1-2 trees, Motzkin numbers