# Counting lines on surfaces, especially quintics 

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#### Abstract

We introduce certain rational functions on a smooth projective surface $X \subset \mathbb{P}^{3}$ which facilitate counting the lines on $X$. We apply this to smooth quintics in characteristic zero to prove that they contain no more than 127 lines, and that any given line meets at most 28 others. We construct examples which demonstrate that the latter bound is sharp.


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