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In connection with a problem on sums of square representations we came up with an infinite class of univariate polynomials for each of which we conjectured unicity of a positive root. None of the classical results or methods like Descartes' rules and its extensions by Laguerre, Sturm's theorem, or more generally quantifier elimination, etc. would allow us to decide the conjecture. We then found that by means of a reformulation of the question via Linear Programming we could reduce it to a problem about an (infinite) class of lacunary polynomials with 11 terms. With this approach now a proof of the conjecture for all polynomials of degree up to several hundreds should be possible while it also led us in a natural way to find a counter example of degree 650. More important than the specific result seems to be the apparently new method we employed. Joint work with my supervisor, Alexander Kovacec. (Received September 16, 2008)