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On the number or ramified primes in specializations

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Abstract: This talk will focus on the behavior of the number of ramified primes in finite Galois extensions of $\mathbb{Q}$ obtained by specializing finite Galois extensions of $\mathbb{Q}(T)$ at positive integers. In the first part, I will recall some previous results which consist in producing some *suitable* positive integers n such that the ramification (and then the number of ramified primes) of the specialization at n satisfies some desired properties and explain how these results relate to some strong versions of the Inverse Galois Problem. In the second part (based on a joint work with Lior Bary-Soroker), I will present new results about the behavior of the number of ramified primes at a *given* positive integer n.