A problem concerning these is to find the Hilbert function of the ideal $I_p(L)$ of all $p$-by-$p$ minors in a ladder shaped (like Ferrer’s diagram like) subset $L$ of the $m$-by-$n$ rectangle. Or, more generally, of the ideal $I_p(a; Y)$ for any saturated subset $Y$ of the rectangle. Note that when $Y$ is an $m$-by-$n$ rectangle, Abhyankar gives the Hilbert function of $I_p(a; Y) = I_p(a)$. For a ladder $L$, an explicit formula for the Hilbert function of $I_p(L)$, in the case of $p = 2$, was obtained by Kulkarni in 1985. In 1987, Abhyankar and Kulkarni showed that the ideal $I_p(a; Y)$ is Hilbertian, i.e., its Hilbert function is a polynomial for all nonnegative integers. However, there remained the problem of finding an explicit formula for the Hilbert function of $I_p(L)$ for any $p$. This has been solved in 2002 by Ghorpade. Also noteworthy is the work of Krattenthaler and Prohaska (1999, TAMS), which solved the problem for one-sided ladder determinantal ideals. There have been extensive results on the coefficients of the Hilbert polynomial related to counting of non-intersecting families of paths by Modak (1992) and Krattenthaler (1992). We will provide a perspective on this productive journey of collaboration between algebra and combinatorics.