For a given family $\mathcal{L}$ of digraphs, the maximum number $\mathrm{ex}(n, \mathcal{L})$ of arcs a digraph on n vertices containing no member of $\mathcal{L}$ can possesses and the set $\mathrm{Ex}(n, \mathcal{L})$ of digraphs which attain this maximum are studied. In particular, the asymptotic behaviour of $\mathrm{ex}(n, \mathcal{L})/n^2$ is discussed in detail.

For a square matrix A, a sequence $A(n)$ of digraphs, called matrix digraphs, are defined which are of, in some sense, simple structure. An algorithm is given to determine all matrices A such that each $A(n)$ contains no member of $\mathcal{L}$, and has $\mathrm{ex}(n, \mathcal{L}) + o(n^2)$ arcs as $n \to \infty$.

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