## 1117-05-236Akira Saito\* (asaito@chs.nihon-u.ac.jp), Sakurajosui 3-25-40, Setagaya-Ku, Tokyo 156-8550,<br/>Japan, and R.E.L. Aldred and Jun Fujisawa. Forbidden subgraphs and 2-factors in graphs.

For a non-trivial connected graph H, a graph G is said to be H-free if G does not contain an induced matching which is isomorphic to H, and for a set  $\mathcal{H}$  of non-trivial connected graphs, G is said to be  $\mathcal{H}$ -free if G is H-free for every  $H \in \mathcal{H}$ . The authors of this talk have previously proved that if  $2 \leq |\mathcal{H}| \leq 3$  and there exists an integer  $N = N(\mathcal{H})$  such that every graph G in the class of connected  $\mathcal{H}$ -free graphs of order  $\geq N$  and minimum degree  $\geq 2$  contains a 2-factor, then one member of  $\mathcal{H}$  is a star. In this talk, we determine the remaining elements in  $\mathcal{H}$  and hence give a complete characterization of the pairs and triples of forbidden subgraphs that guarantee the existence of a 2-factor in this class. (Received January 15, 2016)