The Petersen and Heawood graphs make up graphical twins via induced matchings

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Inspired by the Isaacs remark (published in 1975), we show that the Petersen and Heawood graphs (P_g and H_g) make up a bijectively linked pair of graphs. Another related new result is that P_g is uniqely decomposable into five induced 3-machings. It shows a kind of the structural rigidity of Pg. Information on maximal matchings with sizes 3,4 and 5 in P_g is recalled. Constructive proofs confirm that the strong chromatic index $sq(P_g) = 5$ and $sq(H_g) = 7$. The three numerical edge coloring partitions for P_g are also determined.