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**Bin Yeh\*** (byeh@vcu.edu) and **Chris Rodger** (rodgerc1@auburn.edu). *The Intersection Problem for Latin Rectangles.*

For positive integers  $r, n$  with  $r \leq n$ , a latin rectangle is an  $r \times n$  array of  $n$  symbols in which each symbol occurs exactly once in each row and at most once in each column, and each cell contains exactly one symbol. If  $L$  is a latin rectangle then let  $L_{i,j}$  denote the symbol in cell  $(i, j)$  of  $L$ . Let  $R$  and  $Q$  be  $r \times n$  latin rectangles. The intersection number of  $R$  and  $Q$  is defined to be  $I(R, Q) = |\{(i, j) \mid 1 \leq i \leq r, 1 \leq j \leq n, R_{i,j} = Q_{i,j}\}|$ . The problem of determining the set of all the possible intersection numbers is referred as the intersection problem. In this paper the intersection problem for latin rectangles is completely solved. (Received September 24, 2018)