The $Greedy_\alpha$ algorithm for WISP (and WJISP) problems
(Ref: Bar Noy et al; Erlebach and Spieksma)

Sort intervals so that $f_1 \leq f_2 \ldots \leq f_n$
$A := \emptyset$
For $i : 1..n$
    If I_i does not conflict with intervals in A
        then $A := A \cup \{I_i\}$
        else let $C_i \subseteq A$ be the minimum profit conflcting set;
            If $w(C_i) \leq \alpha \cdot w_i$ then $A := A - C_i + \{I_i\}$
            EndIf
    End If
EndFor

Note: α is a parameter which is set according to the specific problem variation. For the WISP problem, the approximation ratio is $\frac{1}{\alpha(1-\alpha)}$ and setting $\alpha = 1/2$ yields a 4-approximation.