When multiple sources of data need to transmit their *rateless coded* symbols through a single relay to a common destination, a *distributed rateless code* can be employed to encode the source symbols instead of several separated conventional rateless codes to increase the transmission efficiency and flexibility.

We propose a new class of distributed rateless codes, which also can provide *unequal error protection* (UEP). We analyze the proposed codes employing And-Or tree analysis technique. Moreover, we design several sets of optimum codes for various setups employing multi objective genetic algorithms.