interleaved_family[4,23]

interleaved_family$(T;I;L;L_2)$
$\equiv_{\text{def}} \exists f{:}(i{:}I \to \mathbb{N}_{<\|L(i)\|} \to \mathbb{N}_{<\|L_2\|})$. interleaved_family_occurence$(T;I;L;L_2;f)$

clarification:

interleaved_family$(T;I;L;L_2)$
$\equiv_{\text{def}} \exists f{:}(i{:}I \to \{0..\|L(i)\|^-\} \to \{0..\|L_2\|^-\})$. interleaved_family_occurence$(T;I;L;L_2;f)$