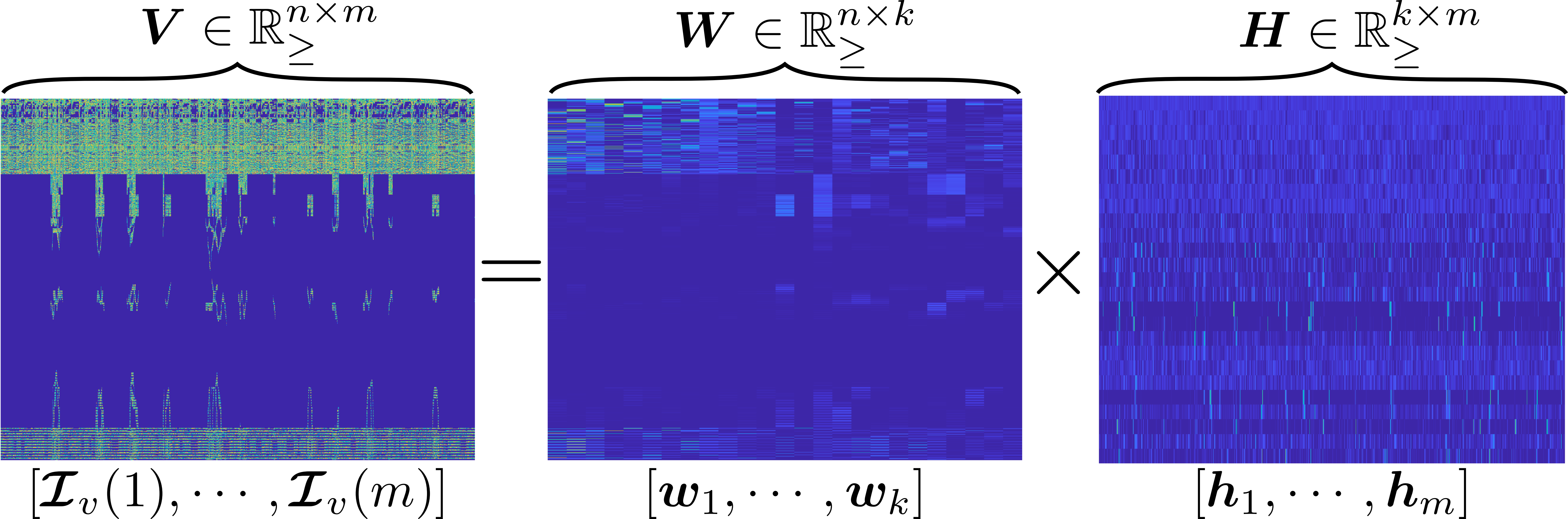
$\boldsymbol{V} \in \mathbb{R}_{\geq}^{n \times m}$
$=$
$\boldsymbol{W} \in \mathbb{R}_{\geq}^{n \times k}$
$\times$
$\boldsymbol{H} \in \mathbb{R}_{\geq}^{k \times m}$
$[\boldsymbol{\mathcal{I}}_v(1), \cdots, \boldsymbol{\mathcal{I}}_v(m)]$
$[\boldsymbol{w}_1, \cdots, \boldsymbol{w}_k]$
$[\boldsymbol{h}_1, \cdots, \boldsymbol{h}_m]$