

## Problem (MEE)

to optimize the values  $\{\mathbf{v}_n\}_{n \in \mathcal{N}}$ ,  $\{\mathbf{u}_n\}_{n \in \mathcal{N}}$  and  $\{x_{ni}\}_{n \in \mathcal{N}, i \in \mathcal{I}}$

Optimization in an alternative manner

### Problem (MEE-BVO)

to optimize the values  $\{\mathbf{v}_n\}_{n \in \mathcal{N}}$  and  $\{\mathbf{u}_n\}_{n \in \mathcal{N}}$

#### Problem (BVO-E)

$\mu$



$\{\mathbf{v}_n\}_{n \in \mathcal{N}}, \{\mathbf{u}_n\}_{n \in \mathcal{N}}$

#### Problem (BVO-E-Sub)

$\{\mathbf{u}_n^*\}_{n \in \mathcal{N}}$

#### Problem (BVO-E-SDR)

##### Problem (BVO-Lagrange)

$\{\mathbf{V}_n\}_{n \in \mathcal{N}}$



##### Problem (BVO-Dual)

$\{\mathbf{v}_n^*\}_{n \in \mathcal{N}}$   
 $\{\mathbf{u}_n^*\}_{n \in \mathcal{N}}$



$\{x_{ni}^*\}_{n \in \mathcal{N}, i \in \mathcal{I}}$

### Problem (MEE-SSO)

to optimize the values  $\{x_{ni}\}_{n \in \mathcal{N}, i \in \mathcal{I}}$

#### Problem (SSO-Matching)

$\{x_{ni}\}_{n \in \mathcal{N}, i \in \mathcal{I}}$

$\{\tilde{\tau}_i\}_{i \in \mathcal{I}}$

#### Problem (SSO-Dual)



### Problem (MEE-SSO)

is solved by **Algorithm 2**

### Problem (MEE-BVO)

is solved by **Algorithm 1**