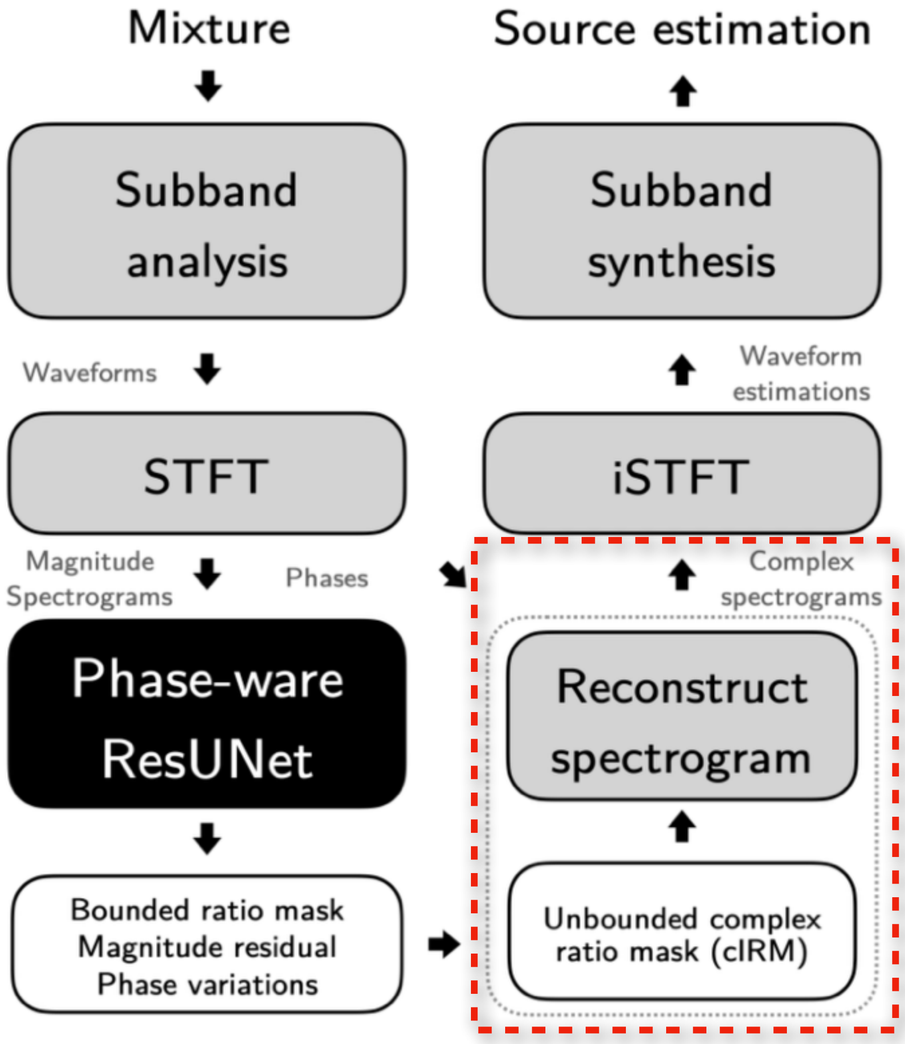
CWS-PResUNet

Step3: subband signal reconstruction

- Input:
  - Subband magnitude spectrogram: $|X'|_{8\times T\times \frac{F}{4}}$
- Estimate:
  - Subband phase variation: $\hat{P}_i, \hat{P}_j$
  - Subband IRM: *sigmoid*$(\hat{M})$
  - Subband magnitude residual: $\hat{Q}$
- Operation:
  - $cos\angle\hat{\theta} = \hat{P}_r/(\sqrt{\hat{P}_r^2 + \hat{P}_i^2}), sin\angle\hat{\theta} = \hat{P}_i/(\sqrt{\hat{P}_r^2 + \hat{P}_i^2})$
  - $\hat{S}' = \text{relu}(|X'| \odot \text{sigmoid}(\hat{M}) + \hat{Q})\exp^{j(\angle X' + \angle\hat{\theta})}$



CWS-PResUNet

Step4: Subband synthesis

- Input
  - Subband signal estimation: $\hat{s}'$
  - Analysis filter banks: $g^{(j)}, j = 1,2,3,4$
- Operation
  - $$\hat{s}_{2\times L} = \sum_{j=1}^{4} (\mathrm{US}_4(\hat{s}'_{2\times 4\times \frac{L}{4}}) * g^{(j)}_{4\times 64})$$