Final Feedback — Audio Source Separation with DPRNN

What's strong

- Great evolution from a basic Conv1D waveform predictor to a **Dual-Path RNN (DPRNN)** in the time-frequency domain — that shows thoughtful model progression and technical ambition.
- You implemented important real-world techniques: **SpecAugment, phase-aware loss**, and **early stopping** — very appropriate for this domain.
- Clear benchmarking against **Open-Unmix** using MUSDB18-HQ, with full metric reporting (SDR, SAR, SIR, ISR) — this makes your work credible and reproducible.

What to highlight in the poster

- Include a **side-by-side bar chart** of the metrics (SDR, SAR, etc.) comparing your DPRNN and Open-Unmix — it's clear, interpretable, and visually powerful.
- Show **spectrograms** (input, prediction, ground truth) — even one example of successful or failed separation is insightful.
- Plot your **training/validation loss curves** from TensorBoard — especially if you have evidence of good generalization.

Refinements for report/poster

- Be explicit about **what worked and what didn't**: e.g., the **phase-aware loss helped**, but performance is still behind SOTA. That honesty adds value.
- Briefly explain **why DPRNN is a strong choice**: the dual intra/inter-chunk RNN structure balances local and global context — this could be one diagram.
- For future work, emphasize the role of **augmentation, parameter tuning (GridSearch)**, and possibly **multi-target separation** (not just vocals vs. accompaniment).

No need to change

- Do not try to outperform Open-Unmix — your architecture is already in the right family and your comparison is robust.
- Avoid expanding to new datasets now. Focus on polishing the model and presentation of what you have.

Optional enhancement

- You could generate **listening examples** for the poster session (a few A/B comparisons between your model and Open-Unmix) — they make your project more tangible and engaging.
- Consider adding **SI-SDR** in your metrics table if time allows — it's increasingly preferred over raw SDR for scale-invariant evaluation.