SPEECH INTELLIGIBILITY, SPATIAL UNMASKING, AND REALISM IN REVERBERANT SPATIAL AUDITORY DISPLAYS

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e a a e e d ffe e ce (ILD), a d ec a a e, e a e f ce d ec [10, 18, 37, 40]. P e e e a e b ec ca e (c d c ed a de a e- ed c a b adba d T_{60} = 650) a d ec a acc ac de de aded (ea ca a e a e c ea ed b 25%), b d a ce e ce f ca e a ced (b a de f a de) c a ed a ec c ace [39, 40].

I add f e c a a e ce , ec e a d e e be a a e e e a d a e a eac a e e . I a a , ec e a d e e be a e d e a ea a de d a , a c a a e d a f e e c e [41-46].

4. SPEECH IN REALISTIC ROOMS

F a - ead - a e f a eec a, c a e , e a ac c fea e a e c e ed b e e a e e e c e a eac f e c (c c a e e e d a). H e e , f e eec d , f a c e ed c a e e e e e a d f e c ; .e., c f e f a a eec a c e ed b e a d a e e e f e e f e eec a a eac f e c [47-49].

Beca e ec e a d e e be a ca ed ce e e e a d a , ec e a d e e be a ca de ade eec e b e ac c e e . H e e , f d a (.e., e a e a), e e a e e f ec e a d e e be a c a ed e d a eec , a d de e ce a de ada a e, a ea a e ea ece e e e e d ec d (e. ., ee [42]). Of c e, e e e f e effec f ec e a d e e be a e a a e ea a e e ca f e ce e a e e e e beca e e d ec d e e a e d ec a d d a ce.

T e effec a e de a ed F e 1, c a a e f a eec a eac e ef ea a ec c ace (b ac) e ed e e a a d eac e ea a a (de a e- ed) c a (ed a) f a ce a a d a ce f 1 a d a f 90 . e (e a a e c a e ea). T e e e e e e a ed b ea e ead- e a ed e e e (HRIR) e c a a a -e e e ce ec e, e ce a eec a ef e e e d -a ec c HRIR (c ec e a d e e be a e e ed e d) e e be a HRIR (c b e d ec a d e e be a c e e e c ded).

Re a ec e a d e e be a a e e a e effec e a a a e ea e e ce a 90 . e a d e ef ea a c de ed. I e e ca e , e d ec d e e e a e , ead a e f e ce f e ec e a d e e be a .

5. SPATIAL UNMASKING OF SPEECH IN ROOMS

Ec e a d e e be a ca e de ada b d ec a ea a d eec e b ; , ec e a d e e be a a de ade e be ef f a a e a a f a e a d a e ce eec e b .

I de e a e ea c ec e a d e e be a f e ce a a a , a d a c c ed de ead e . Ta e a d a e a

e e a ed a d ffe e ca e e d - a ec c a d a d e e be a HRIR ed ce e a F e 1. T e a e a a ead - a e e, c a a a a ed a a d ec f f e e e a a d a ce f 15 c . T e a e a e e e e e e ce a ed a e f e ee d a ce (0.15, 1, 2) a d d ec (0 . a d 90 .) f c HRIR e e ea ed, ead d ffe e a e / a e a a c f a .

F eac a a c f a , b ec e e e ed e e b a a , e ef ea , a d e ea , a d ec a a f e ad a a e f b a a ce . T d ffe e c d e e e ed f eac a a c f a a d ea c d , e a a ec c ace a d e a e e be a c d .

F eac c d , eec ece e d e e ea ed ada e b a e a e e e 50% f e e e ce e d e e de d. Eac e d a ea ed f e e a e f a e d . F a - ea b ec c e ed eac e .

F e 2 e a e d f e d ec - d f e a e (e a e ed ec - d e e f e a e a) a e 50% eec - ece e d. Eac

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8. REFERENCES

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