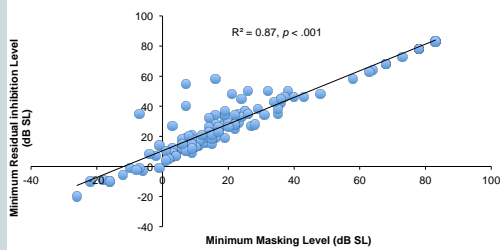


MML vs. MRIL

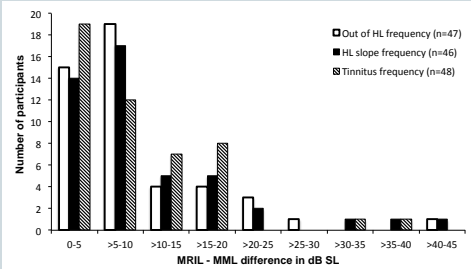
55

a) Correlation between MML & MRIL (n=118)



Distribution of MRIL – MML difference

56



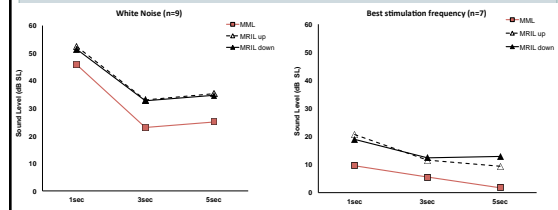
Results

57

EFFECT OF STIMULATION DURATION

MML and MRIL: Stimulation duration

58



Results

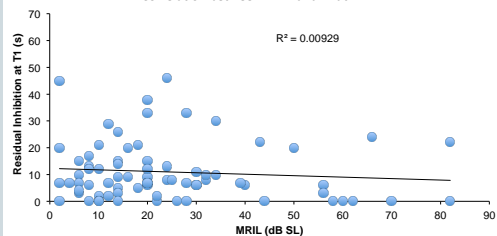
59

THE NEW RI PARADIGM VS. THE CLASSIC APPROACH

« Classic vs New » RI method

60

Correlation between MRIL and RI at T1



Conclusions

61

- The new MML and MRIL is easy, quick and reliable and as effective as the classic method
- Measurable on all types of hearing loss configurations
- The MML and MRIL are minimal near the tinnitus frequency
- MML and MRIL can be compared as they are both expressed in dB

Perspective

62

- This method may be used to document further RI (prognostic value, properties of RI...)
- This method may be used to classify subjects according to the difference between the MRIL and MML (low vs. high values)
 - This method may provide prognostic information on auditory stimulation approaches
- This method may provide some control on tinnitus
 - Useful when tinnitus is particularly strong
 - Useful for counselling
- This method may be used to design a customized acoustic stimulation aimed at maximizing RI

Tinnitus masking : why?

63

- Guide clinical interventions

Successful masking: the ideal case

Using the testing techniques described above, we have now encountered many cases in which full relief for the tinnitus could be easily achieved using one of the presently available tinnitus maskers. Such 'ideal cases' share the following characteristics:

- (1) The tinnitus frequency, F_T , can be easily and reliably located.
- (2) The tinnitus can be completely covered by a band of noise at or near F_T , at a low sensation level.
- (3) The masking sound seems unobtrusive to the patient, and can be easily ignored.
- (4) Most important, the patient considers the tinnitus-masking sound to be a welcome, and even pleasant, alternative to the tinnitus.

Vernon & Meikle, 1981
Tinnitus masking: unresolved problems

Acknowledgements

64

Collaborators:

-Stéphane Gallego
-Fabien Paolino
-Michel Paolino
-Anne Quemar
-Alain Londero

Student:

- Anne-Flore Cuvillier

Funding agencies:

-CNRS
-Université d'Aix
Marseille
-B2V
-Klesia
-CIHR
-FRS-Q



Q&A

65




philippe.fournier@univ-amu.fr

REFERENCES

66

- Hébert, S., & Fournier, P. (2017). Clinical validation of a new tinnitus assessment technology. *Frontiers in neurology*, 8, 38.
- Basile, C. É., Fournier, P., Hutchins, S., & Hébert, S. (2013). Psychoacoustic assessment to improve tinnitus diagnosis. *PLoS One*, 8(12), e82995.
- Eggermont, J.J., 2012. The Neuroscience of Tinnitus. OUP Oxford.
- Fournier, P., Cuvillier, A. F., Gallego, S., Paolino, F., Paolino, M., Quemar, A., ... & Norena, A. (2018). A New Method for Assessing Masking and Residual Inhibition of Tinnitus. *Trends in hearing*, 22, 2331216518769996.
- Stouffer, J. L., & Tyler, R. S. (1990). Characterization of tinnitus by tinnitus patients. *Journal of Speech and Hearing Disorders*, 55(3), 439-453.
- Feldmann, H. (1971). Homolateral and contralateral masking of tinnitus by noise-bands and by pure tones. *Audiology*, 10(3), 138-144.
- Vernon, J. A., & Meikle, M. B. (1981). Tinnitus masking: unresolved problems. In *CIBA foundation symposium* (Vol. 85, pp. 239-56).



CAA Webinars

Stay tuned for the 2019 webinar schedule!

Remember to check out our archived webinars on our website.

Canadian Academy of Audiology (CAA) Webinar Nov 2018

67




Save the Date!

CAA Conference and Exhibition 2019

**Marriott Harbourfront, Halifax, N.S.
Sun Oct 27 - Wed Oct 30, 2019**



68



Contact Information

- CanadianAudiology.ca
- Contact@CanadianAudiology.ca
- Subscribe CanadianAudiology.ca/get-involved/subscribe/

Canadian Academy of Audiology (CAA) Webinar Nov 2018

69