

Papers Written or Edited by John G. McKnight : Bibliography by Subject

Contact me at mrltapes-at-flash-dot-net if you need a paper that is not yet linked here, and I'll add it. Otherwise I'll be adding others from time to time.

1 DESIGN OF MAGNETIC RECORDING HEADS

- 1.01 “Specifications for Magnetic Recording and Reproducing Heads, and Tapes”, Presented at AES Convention 1970-05-07. Abstract in *Jour. Audio Eng. Soc.*, Vol. 18, p 340 (1970-06).
- 1.02 E. Unger and K. Fritzsich (JGM co-translator and editor), “Calculation of Stray Reluctance of Gaps in Magnetic Circuits”, *Jour. Audio Eng. Soc.*, Vol. 18, pp. 641...643 (1970-12).
- 1.03 R. Otto (JGM co-translator and editor), “The Effect of Conducting Gap Spacers on the Impedance of Magnetic Heads”, *Jour. Audio Eng. Soc.*, Vol. 20, pp. 258...264 (1972-05).
- 1.04 [“The Permeability of Laminations for Magnetic Recording and Reproducing Heads”](#), AES Preprint 1265, pp. 1...9 (1977-05).
- 1.05 “Magnetic Design Theory for Tape Recorder Heads”, *Jour. Audio Eng Soc.*, Vol 27, pp. 106...120 (1979-03).
- 1.06 “How the Magnetic Characteristics of a Magnetic Tape Head Are Affected by Gap Length and a Conducting Spacer”, *Jour. Audio Eng. Soc.*, Vol. 26, pp. 930...934 (1978-12).
- 1.07 [“Excess Spacing Loss with Alfenol-Core and Ferrite-Core Magnetic Tape Reproducing Heads”](#), *Jour. Audio Eng. Soc.*, Vol. 42, pp. 141...146 (1994-03).

2 MAGNETIC RECORDING PROCESS

- 2.01 “The Effect of Bias Amplitude on Output at Very Short Wavelengths”, *Jour. Audio Eng. Soc.*, Vol. 9, pp. 98...102 (1961-03).
- 2.02 [“Biasing in Magnetic Tape Recording”](#), *Electronics World*, Vol. 78, pp. 34...36, 75 (1967-08): Also in *Ampex Readout* Vol. 7, pp. 14, 15 (1968 Nr. 1).

3 MAGNETIC REPRODUCING PROCESS

- 3.01 K. Fritzsich (JGM Co-translator and editor), “Long-wavelength Response of Magnetic Reproducing Heads”, *IEEE Audio & Electroacoustics*, Vol. AU-16, pp. 486...494 (1968-12).
- 3.02 [“Tape Flux Measurement Theory and Verification”](#), *Jour. Audio Eng. Soc.*, Vol. 18, 250...262 (1970-06). [Also published in Japanese translation in *Eiga-TV Gijutsu*, 239 pp. 9, 59...64 and 240 pp. 58...65 (*Journal of the Motion Picture and Television Engineering Society of Japan*) (1972).]
- 3.03 “The Fringing Response of Magnetic Reproducers at Long Wavelengths”, *Jour. Audio Eng. Soc.*, Vol. 20, pp. 100...105 (1972-06). See 6.17 for an update of this paper.

- 3.04 [“Gap-length Response in Magnetic Reproducers: Calculation, Measurement, and Compensations”](#), AES Preprint 1297, pp. 1...8 (1977-11).
- 3.05 [“Corrigendum: To the Gap Loss Formula](#), the Asymptotic Expansion (Eq. 15a) of Westmijze's”Studies on Magnetic Recording”, *Jour. Audio Eng. Soc.*, Vol. 39, Nr. 11, p. 878 (1991-11).

4 MAGNETIC ERASING PROCESS

- 4.01 [“Erasure of Magnetic Tape”](#), *Jour. Audio Eng. Soc.*, Vol. 11, pp. 223...233 (1963-10).

5 SIGNAL AND NOISE CONSIDERATIONS IN AUDIO RECORDING

- 5.01 [“Signal-to-noise Considerations in Master Recording Systems”](#), a part of "The Multichannel Recording for Mastering Purposes", by Fuji, Rehkla, McKnight, and Miltenberg., *Jour. Audio Eng. Soc.*, Vol. 8, pp. 245...257 (1960-10).
- 5.02 [“Signal-to-noise Problems and a New Equalization for Magnetic Recording of Music”](#), *Jour. Audio Eng. Soc.*, Vol. 7, pp. 5...12 (1959-01).
- 5.03 [“The Distribution of Peak Energy in Recorded Music, and its Relationship to Magnetic Recording Systems”](#), *Jour. Audio Eng. Soc.*, Vol. 7, pp. 65...71 (1959-04).
- 5.04 “The Frequency Spectra of Several Languages as a Criterion for the Frequency Response of Language Laboratories”, AES Preprint 288 (1963-10).
- 5.05 [“A Comparison of Several Methods of Measuring Noise in Magnetic Recorders for Audio Applications”](#), *IRE Trans. Audio*, Vol. AU-8, pp. 39...42 (1960-03 & 04).
- 5.06 [“The Case Against Low-frequency Pre-emphasis in Magnetic Recording”](#) *Jour. Audio Eng. Soc.*, Vol. 10, pp. 106, 107 (1962-04).
- 5.07 “Optimizing the Subjective Signal and Noise Levels in Commercial Tape Records”, paper presented at the AES Convention 1969-10-16. Abstract in *Jour. Audio Eng. Soc.*, Vol. 17, p 718 (1969-12).
- 5.08 JGM and Peter F. Hille, [“Master-tape Equalization Revisited”](#), AES Preprint 856 (1972-05).
- 5.09 JGM and Trevor Kendall, [“Proposed Equalization for 15 in/s Master Recording on High-output, Low-Noise Tapes”](#), AES Preprint 920 (1973-05).

6 FREQUENCY AND WAVELENGTH RESPONSE, MEASUREMENTS, STANDARDIZATION, etc. (See also Sec. 3)

- 6.01 [“The Frequency Response of Magnetic Recorders for Audio”](#), *Jour. Audio Eng. Soc.*, Vol. 8, pp. 146...153 (1960-07). [Abridged reprint in *Broadcasting and Television*, Vol. 12 (Australia), pp. 32,34 (1962-03-29).]
- 6.02 [“Flux and Flux-frequency Measurements and Standardization in Magnetic Recording”](#), *JSMPT*, Vol. 78, pp. 457...472 (1969-06). [Revision of “Absolute Flux and Frequency Response Characteristics in Magnetic Recording”, *Jour.*

Audio Eng. Soc, Vol. 15, pp. 254...272 (1967-07), which it replaces.]

- 6.03 [“Tape Reproducer Response Measurements with a Reproducer Test Tape”](#), *Jour. Audio Eng. Soc*, Vol. 15, pp. 152...156 (1967-04).
- 6.04 JGM and R.K. Morrison, “Test Tapes”, *db Magazine*, Vol. 2, pp. 26...31 (1968-11).
- 6.05 “A List of Published Standards Related to Magnetic Sound Recording”, *Jour. Audio Eng. Soc*, Vol. 15, pp. 314+, (1967-07).
- 6.06 “Audio Standards Listings: Standards Organizations” and “Audio Standards Listings: Magnetic Sound Recording”, *Jour. Audio Eng. Soc*, Vol. 18, pp. 317...321 (1970-06). Updates 1967-07
- 6.07 “Measuring a Tape Reproducer with IEC-Response, Using an NAB-Response Test Tape”, *Jour. Audio Eng. Soc*, Vol. 17, p 572 (1969-10).
- 6.08 “Studio Tape Recorder Measurements and Adjustment”, presented at the Workshop on Studio Tape Recorders, AES Convention 1971-10-06. Abstract in *Jour. Audio Eng. Soc*, Vol. 19, p 880 (1971-11). Outline of talk available.
- 6.09 “EIA RS-400 Reproducer Test-tape Reviewed”, *Jour. Audio Eng. Soc*, Vol. 21, pp. 115...117 (1973-03).
- 6.10 “Performance and Interface Specifications for Professional Audio Magnetic Recorders”, AES Preprint 903 (1972-09).
- 6.11 “Operating Levels in the Duplication of Philips Cassette Records”, *Jour. Audio Eng. Soc*, Vol. 15, pp. 454, 456 (1967-10).
- 6.12 “The 'Difference Method' for Azimuth Adjustment in Magnetic Tape Reproducers”, AES Convention 1973-05-16. Abstract *Jour. Audio Eng. Soc*, Vol. 21, p 482 (1973 Nr 6).
- 6.13 “Desirability of a Tape Rating System” (Letter), *Jour. Audio Eng. Soc*, Vol. 20, p 762 (1972-11).
- 6.14 “Open-circuit Versus Short-circuit Tape Flux Measurement”, AES Convention 1974-09. Abstract in *Jour. Audio Eng. Soc*, Vol. 22, p 728 (1974-11).
- 6.15 “Frequency-sweep Test Tapes: Design and Use”, AES Convention 1974-09. Abstract in *Jour. Audio Eng. Soc*, Vol. 22, p 732 (1974-11).
- 6.16 JGM, R.K. Morrison, and Steve Katz: “Alignment”, *Recording Engineer/Producer*, Vol 6, Nr 1, pp 19+ (1975-02).
- 6.17 [“Low-frequency Response Calibration of a Multitrack Magnetic Tape Recording and Reproducing System”](#), *Jour. Audio Eng. Soc*, Vol. 26, pp. 202...208 (1978-04).
- 6.18 [“On the Need for a Standard Method for Primary Calibration of the Frequency and Wavelength Response of a Magnetic Tape Reproducer”](#), *Jour. Audio Eng. Soc.*, Vol. 26, pp. 867...870 (1978-11).
- 6.19 [“A History of Audio Standards Writing in the USA”](#), a part of "Standardization Activity of the AES –the History Before 1982" by Langdon, Queen, McKnight, and Campbell, *Jour. Audio Eng. Soc*, Vol. 30, Nr. 4, pp. 240...248 (1982-04).

6.20 JGM, B Cortez and JA McKnight, "[Tape Flux Measurement Revisited](#)", *Jour. Audio Eng. Soc*, Vol. 46, Nr. 10, pp. 845...858 (1998-10).

6.21 Otto Schmidbauer, (JGM editor), "[Determining the Magnetization of Magnetic Tape](#)", *Jour. Audio Eng. Soc*, Vol. 46, Nr. 10, pp. 859...864 (1998-10).

6.22 German Standard 45 520 (Unofficial translation, JGM editor) "[Method for Measuring the Absolute Magnitude and Frequency Response of the Flux on Magnetic Tape](#)", *Jour. Audio Eng. Soc*, Vol. 46, Nr. 10, pp. 865...867 (1998-10).

7 AUDIO SYSTEMS AND PRACTICES

7.01 "[Why Stereo? The Philosophy of Multichannel Recording of Music](#)", *Jour. Audio Eng. Soc*, Vol. 8, pp. 87...90 (1960-04).

7.02 "Audio Transmission Systems: Theory, Standards, and Practice", a panel discussion organized and chaired by JGM, AES Convention 1970-10-15. Abstract in *Jour. Audio Eng. Soc*, Vol. 18, p 704 (1970-12).

7.03 "[Noise Index Measurements](#)", *Recording Engineer/Producer*, Vol. 9, pp. 14, 16 (1978-02).

7.04 "[Matching' Signal Interconnections of Professional Audio Components](#)", *Recording Engineer/Producer*, Vol. 12 Nr. 3, pp. 68, 70, 72, 73 (1981-06).

8 PROGRAM LEVEL INDICATORS

8.01 "A Review of Program Level Indicating Systems", Presented at the AES Convention 1970-05-04. Abstract in *Jour. Audio Eng. Soc*, Vol. 18, p 332 (1970-06).

8.02 "[The Practical Measurement of vu Meter Dynamic Characteristics](#)", Presented at the AES Convention 1965-04-29. Abstract in *Jour. Audio Eng. Soc*, Vol. 13, p 264 (1965-07).

9 TAPE TRANSPORT DESIGN, FLUTTER MEASUREMENT, etc.

9.01 "Time Base Distortion in Continuous Recording Systems: its Terminology, Measurement, Causes, and Effects", *Jour. Audio Eng. Soc*, Vol. 10, pp. 44...48 (1962-01).

9.02 W. Wolf (JGM co-translator and editor), "[Electromechanical Analogs of the Filter Systems Used in Sound Recording Transports](#)", *IEEE Trans Audio & Electroacoustics*, Vol. AU-14, pp. 66...85 (1966-06). [Revision and expansion of "An Investigation of Speed Variations in a Magnetic Tape Recorder, with the Aid of Electro-mechanical Analogies", *Jour. Audio Eng. Soc*, Vol. 10, pp. 119...129 (1962-04), which it replaces.]

9.03 "[Mechanical Damping in Tape Transports](#)", *Jour. Audio Eng. Soc*, Vol. 12, pp. 140...146 (1964-04).

9.04 "[Speed, Pitch, and Timing Errors in Tape Recording and Reproducing](#)", *Jour. Audio Eng. Soc*, Vol. 16, pp. 266...274 (1968-07).

9.05 "Comments on Wow and Flutter Perceptibility" (Letter) *Jour. Audio Eng. Soc*, Vol. 18, pp. 440, 441 (1970-08).

- 9.06 E. Belger (JGM co-translator and editor), “On Measuring Frequency Variations”, *IEEE Trans on Audio & Electroacoustics*, Vol. AU-20, pp. 79, 80 (1972-03).
- 9.07 “Development of a Standard Measurement to Predict Subjective Flutter”, *IEEE Trans Audio & Electroacoustics*, Vol. AU-20, pp. 75...78 (1972-03).
- 9.08 “The New Standard for Weighted Peak Flutter Measurements”, *db Magazine*, Vol. 8, Nr. 1, pp. 28...30 (1974-01). [Revision of “Weighted Peak Flutter Measurement— a Summary of the New IEEE Standard”, *Jour. Audio Eng. Soc.*, Vol. 19, pp. 859...861 (1971-11), which it replaces.]
- 9.09 JGM and Mark R. Weiss, “[Flutter Analysis for Identifying Tape Recorders](#)”, *Jour. Audio Eng. Soc.*, Vol. 24, pp. 728...734 (1976-11).
- 9.10 “[Azimuth and Interchannel Time Displacement Error in Multi-track Tape Recording](#)”, AES Preprint 1666, pp 1...9 (1980-05)

10 MISCELLANY

- 10.01 On “rms” Power: “and Displease an Engineer” (Letter) *Audio Magazine*, Vol. 49, p 6 (1965-11).
- 10.02 “Comment on 'What's a Watt (rms)?'” (Letter) *Jour. Audio Eng. Soc.*, Vol. 20, p 46 (1972-01&02).
- 10.03 “Regarding Accurate Terminology” (Letter re 'gain' and 'amplification') *Jour. Audio Eng. Soc.*, Vol. 18, p 440 (1970-08).
- 10.04 “Unit Standards”, *db Magazine*, Vol. 2, p 22 (1968-10).
- 10.05 “Advantages of Using Peak Power Ratings Instead of Average Power”, (Letter) *Jour. Audio Eng. Soc.*, Vol. 20, p 584 (1972-09).
- 10.06 “How to Write the Date”, *Jour. Audio Eng. Soc.*, Vol. 22, p 819 (1974-12).
- 10.07 “Quantities, Units, Letter Symbols, and Abbreviations”, *Jour. Audio Eng. Soc.*, Vol. 24, pp. 40...44 (1976-01&02).
- 10.08 About MRL: [Ralph Hodges, “Magnetic Reference Laboratory](#) and the State of Reproducer Calibration”, and “Jay McKnight and MRL”, *db Magazine*, Vol. 11 Nr. 14, pp. 52...57 (1980-11).
- 10.09 “[Demagnetizing a Tape Recorder](#)”, *db Magazine*, Vol. 21, Nr. 4, pp. 41...43 (1987-07/08).
- 10.10 “Some Topics in Restoring Old Tape Masters: Equalization Standards, Azimuth Standards, Tape Improvements, and Print-Thru”, based on a talk given at the AGFA Forum “Restoring Old Masters”, Registry Hotel, Los Angeles, CA, (1989-04-12). Paper in draft for submission to AES Journal

1999-09-14

Links added 2007-09-10