LORETA Z SCORE WORKSHOP
OUTLINE
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Clinical Applications of the EEG:
A Practical Hands on Approach: How to go from Clinical History to EEG Acquisition to QEEG Analysis to Surface and LORETA Z Score Biofeedback in a Single Session

Items Covered in Lectures & Demonstrations:

1. Start with the patient’s clinical history and symptoms and hypothesize how the brain’s localization of function properties are liked to the patient’s clinical history.

2. Learn how to import digital EEG data and to visually examine the EEG tracings and how to recognize artifact and how to re-montage (average reference, Laplacian, Bipolar, common reference by a mouse click).

3. Learn how to Automatically Eliminate artifact and how to measure the Test Re-Test Reliability and the Quality of your recordings.

4. Learn how to examine EEG traces and dynamically link visual events in the EEG tracings to the QEEG. Learn how to avoid bias in the selections of EEG for QEEG analysis.

5. Learn how to minimize the effects of medication by using the Laplacian transform.

6. Learn how to use LORETA to confirm localization hypotheses to help link the localization of the “weak” functional systems of the brain related to the patient’s symptoms in contrast to “Compensatory” systems.
7- Learn how to interpret power, coherence and phase delays in terms of convergent anatomical information and again link to the patient’s symptoms.

8- Learn how to interpret discriminant functions and to hypothesize links between the discriminant function and the patient’s clinical history.

9. Learn how to efficiently write a clinic report by linking the diffuse and localized EEG measures to Brain Function and to the patient’s clinical history and symptoms.

10. Learn how to immediately begin Neurofeedback in the same session using a Symptom Check List to generate functional localization hypotheses and to test the hypotheses using the patient’s QEEG Z Scores by simple mouse clicks.

12. Learn how to develop an individualized neurofeedback protocol based on the strategy to minimize abnormal EEG deviations integrated with other measures including the patient’s clinical history and the clinician’s judgment.

13- Measure the EEG of a volunteer attendee and produce topographic color maps and analyses sufficient to hypothesize a general neurofeedback protocol using the Symptom Check List map to the scalp EEG and Brodmann areas.

14- Learn seamless QEEG & NFB with the symptom check list to hypothesize “weak” vs “compensatory” brain systems and to automatically create a 19 channel Z Score biofeedback protocol based on the match of hypothesized weak systems to deviant QEEG Z Scores.

15- Learn how to conduct statistical pre vs post treatment color topographic maps of a 19 channel Z score biofeedback session. Learn seamless QEEG and Neurofeedback integration.

16- The goal is to go step by step through the procedure with repetition and not as a speed drill. Attendees will be given a
temporary key B to give access to the various programs used in the course.