

QuantumBCI Analysis Report

Generated: 2025-10-01 12:30:39

Session Information

Filename:	S108R01.edf
Upload Time:	2025-10-01 12:28:07
Original Channels:	64
Selected Channels:	20
Processing Status:	completed

Brain Metrics Analysis

Brain State:	Deep Sleep
--------------	------------

Frequency Band Powers

Band	Absolute Power (uV^2)	Relative Power (%)
Delta	0.6467	81.29%
Theta	0.0767	9.64%
Alpha	0.0457	5.74%
Beta	0.0231	2.91%
Gamma	0.0033	0.42%

Model Predictions

Model	Type	Accuracy	Processing Time
QSVM	quantum	50.00%	1.338s
SVM	classical	33.33%	0.000s
Random Forest	classical	33.33%	0.025s

Summary & Recommendations

- Best performing model: QSVM with 50.00% accuracy
- Detected brain state: Deep Sleep
- Dominant frequency band: Delta
- Total spectral power: 0.7956 μV^2

Clinical Recommendations:

- Low alpha activity - may indicate stress or active cognitive processing
- Continue monitoring for trend analysis
- Consult with neurologist for clinical interpretation