
Run-to-run drift reduction of dynamically tuned gyro

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Systematical drift of dynamically tuned gyro are defined with multiple factors, the most predictable of which is rotor magnetization vector orientation in reference to synchronous hysteresis drive rotor. The article presents experimental data on different dynamically tuned gyros' drive rotor magnetization vector rotation methods based on variation of power supply parameters, such as voltage pulsing of various width or amplitude to inductors of drive rotor. We also offer methods of actual drive rotor magnetism orientation vector and experimental data on systematical drift of dynamically tuned gyro quantity value. As a result the dependence of dynamically tuned gyro drift systematical component of magnetization vector rotation was found. We formulated physical model of researched dependence. This study could be valuable for engineers and students of appropriate specialty.

Keywords: *dynamically tuned gyro, drift, synchronous drive*

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