

List of Patents

1. US Patent Pending. Serial Number 60/145,499, filed July 23, 1999. **"REPEATABLE RUNOUT COMPENSATION USING A LEARNING ALGORITHM WITH SCHEDULED PARAMETERS"**. Original Patent Disclosure title: "*SP-ZAP: A Zero Acceleration Path (ZAP) Compensation Algorithm Using Scheduled Parameters (SP)*". (Seagate Intellectual Property Dept. Docket # SEA 9206.01, July 23,1999), 12/15¹
2. US Patent Pending. Serial Number 60/132,992, filed May 7, 1999. **"REPEATABLE RUNOUT COMPENSATION USING ITERATIVE LEARNING CONTROL IN A DISC STORAGE SYSTEM"**. Original Patent Disclosure title: "*Computationally Simplified Zero Acceleration Path Methods*". (Seagate Intellectual Property Dept. Docket # SEA 9126.01, May 7,1999), 12/15
3. US Patent Pending. Serial Number 60/151,205, filed August 27, 1999. **"Enhanced Adaptive Feedforward Control (EAFC) to Cancel Once-Per-Revolution (OPR) Disturbance by Shaping the Internal Model"**. (Seagate Intellectual Property Dept. Docket # SEA 9262.01, August 27,1999) 10/15.
4. U.S. Patent Pending. Serial Number 60/151,204, filed August 27, 1999. **"SEEK IN A DISC DRIVE WITH NONLINEAR PIVOT FRICTION"**. Original Patent Disclosure title: "*Methods to Improve Seek Error Rate Due to Nonlinear Pivot Friction*". (Seagate Intellectual Property Dept. Docket # SEA 9264.01, August 27, 1999) 8/15
5. U.S. Patent Pending. Serial Number 60/151,695. Filed on May 31, 2000. **"Method of Characterizing and Screening VCM Pivot Friction in the Low Velocity Region"**. (Seagate Intellectual Property Dept. Docket # SEA 9277.01, 31/08/1999) 6/15
6. US Patent Pending. Serial Number 60/184,718, filed February 24, 2000. **"An Efficient Sensorless Rotational Vibration and Shock Compensator (RVSC) for Low End Hard Disk Drives with Higher TPI"**. (Seagate Intellectual Property Dept. Docket # SEA 9472.01. Dec. 1999), 10/15
7. US Patent Pending. Serial Number 60/184,932 filed February 25, 2000. **"OPTIMALLY DESIGNED PARSIMONIOUS REPETITIVE LEARNING COMPENSATOR FOR HARD DISC DRIVES HAVING HIGH TRACK DENSITY"**. Original Patent Disclosure title: "*Optimal Parsimonious Repetitive Learning Control for Enhancing Track-Following Performance of Low-end Hard Disk Drives*". (Seagate Intellectual Property Dept. Docket # SEA 9502.01. Dec. 1999), 12/15
8. US Patent Pending. Serial Number 09/792,654, filed on February 23, 2001. **"Method for harmonic frequency identification in a disk drive"**. Original Patent Disclosure title: "*An*

¹ Review marks. Minimum 4 out of 15 is needed for "pursue".

- Approximate Method for Harmonic Frequency Identification In a Disc Drive*". (Dec. 30 1999)
(Seagate Intellectual Property Dept. Docket # SEA 9497.01.)
9. US Patent Pending. Serial Number 60/212,546. Filed on June 20, 2000. "**Seeking Algorithm to Implement Automatic Acoustic Management (AAM) in HDD**", May 8, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9686.01.) (7 pages, 3 original claims)
 10. US Patent Pending. Serial Number Serial no. 60/212,645. Filed date Jun 20, 2000. "**An Active Damping Technique to Handle Resonance Effects on Seek Settling in HDD Servo**", May 12, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9684.01) (8 pages, 5 original claims)
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 11. US Patent Pending. Serial Number 60/211,552, filed on June 14, 2000. "**METHOD AND APPARATUS FOR HANDLING MULTIPLE RESONANCE FREQUENCIES IN DISC DRIVES USING ACTIVE DAMPING**". Original Patent Disclosure title: "*Techniques for Improving Seek-settling by Selective Multiple Active Damping Schemes Against Plural Resonance Frequencies*", May 19, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9693.01) (8 pages, 20 original claims)
 12. US Patent Pending. Serial Number 60/222,999, filed on Aug. 4, 2000. "**METHOD AND APPARATUS FOR DETERMINING HIGH ORDER POLYNOMIALS FOR LINEARIZATION OF POSITION SIGNALS**". Original Patent Disclosure title: "*A Piecewise High Order Polynomial Head Linearization Algorithm Using Least Mean Squares Iteration*", June 6, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9736.01) (8 pages, 10 original claims)
 13. US Patent Pending. Serial Number 60/227,619 filed August 23, 2000. "**REPEATABLE RUN-OUT ERROR COMPENSATION METHOD FOR A DISC DRIVE**". Original Patent Disclosure title: "*Method to Improve the Compensation for Written-in Error in A Hard Disk Drive*", June 6, 2000. Submitted on July 28, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9819.01) (7 pages, 3 original claims) **8/15**
 14. "**PES Frequency and Magnitude Dependent Scheduling of Q-filter's Relative Degree in RVSC (Rotational Vibration and Shock Compensator)**", Aug. 4, 2000. Submitted on August 8, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9839.01) (9 pages, 3 original claims) (note: pending)
 15. US Patent Pending. Serial Number 60/227,880, filed August 25, 2000. "**Identification and Cancellation of Cage Frequency in a Hard Disc Drive**", July 05, 2000 (Seagate Intellectual Property Dept. Docket # SEA 9838.01) (14 pages, 10 original claims)
 16. US Patent Pending. Serial Number 60/227,619 filed August 23, 2000. "**REPEATABLE RUN-OUT ERROR COMPENSATION METHOD FOR A DISC DRIVE**". Original Patent Disclosure title: "*A Hybrid Scheme for Written-in RRO (repeatable runout) Compensation with Adjustable Track-Squeeze Improvement*", Submitted on August 29, 2000. (Seagate Intellectual Property Dept. Docket # SEA 9882.01) (6 pages, 6 original claims) (Note: merged with SEA 9819.01, see no. 13 above.)