

DR. ALLAN M. ZAREMBSKI

BOOKS

1. Zarembski, A.M., Tracking R&D, Research & Development, **Simmons-Boardman Books, Inc.**, Omaha, NE, March 1993
2. Zarembski, A.M., The Art and Science of Rail Grinding, **Simmons-Boardman Books, Inc.**, Omaha, NE, August 2005

BOOK CHAPTERS

1. The Railroad: What It Is, What It Does, Chapter 3: The Track: Alignment and Structure, **Simmons Boardman Books, Inc. 2008**
2. Guidelines to Best Practices for Heavy Haul Railway Operations, Chapter 6.7 Maintenance Management Analysis Tools, **International Heavy Haul Association, 2009**

PUBLICATIONS

1. Zarembski, A. M., "Rail Rollover - The State of the Art", **Bulletin of the American Railway Engineering Association, Bulletin 664, Volume 79**, September - October 1977.
2. Zarembski, A. M., "Freight Car Environment Characterization for Fatigue Life Analysis", **Track/Train Dynamics and Design, Advanced Techniques**, Pergamon Press, N.Y., 1978.
3. Garg, V. K., Prasad, B., & Zarembski, A. M., "Structural Dynamic Analysis & Fatigue Life Prediction of a Flat Car", **1977 Technical Proceedings 14th Annual Railroad Engineering Conference**, Pueblo, CO, March 1978.
4. Abbott, R. A., & Zarembski, A. M., "On the Prediction of the Fatigue Life of Rails", **Bulletin of the American Railway Engineering Association**, Bulletin 666, Volume 79, January - February 1978, p.p. 191-203.
5. Zarembski, A. M., & Abbott, R. A., "Fatigue Analysis of Rail Subject to Traffic and Temperature Loading", **Heavy Hauls Railways Conference**, Perth, Western Australia, September 1978.
6. Zarembski, A. M., "On the Nondestructive In Track Measuring the Longitudinal Force", **Conference on Nondestructive Techniques for Measuring the Longitudinal Force in Rails**, Washington, D.C., February 1979.

7. Zaremski, A. M., "Effect of Rail Section and Traffic on Rail Fatigue Life", **American Railway Engineering Association, 78th Annual Technical Conference**, Chicago, IL, March 1979.
8. McConnell, D. P., Zaremski, A. M., & Lovelace, W. S., "Track Strength Characterization Program an Overview", **American Railway Engineering Association, 78th Annual Technical Conference**, Chicago, IL, March 1979.
9. Darien, N. J., & Zaremski, A. M., "Railroad Freight Equipment Load Environment Testing", **25th International Instrumentation Symposium**, Anaheim, CA, May 1979.
10. Torkamani, M. A. M., Bhatti, M. H., & Zaremski, A. M., "Dynamic Rail Overturning: Modeling and Application", **Third ASCE/EMD Specialty Conference**, Austin, TX, September 1979.
11. Zaremski, A. M., & Rassasian, M., "Track Gage Widening A Model Study", **Transportation Engineering Journal**, American Society of Civil Engineers, November 1979.
12. Choros, J., & Zaremski, A. M., "Track Strength Vehicle Testing on High Curvature Mainline Track", **Rail International**, July 1982.
13. Abbott, R. A., & Zaremski, A. M., "Longer Rail Life is Goal", **Modern Railroads**, December 1978.
14. Torkamani, M. A. M., Bhatti, M. H., & Zaremski, A. M., "Dynamic Rail Overturning: Modeling", **Rail International**, September 1980.
15. Torkamani, M. A. M., Bhatti, M. H., & Zaremski, A. M., "Dynamic Rail Overturning: Application", **Rail International**, October 1980.
16. Zaremski, A. M., "On the Feasibility of Continuous Measurement of Track Gauge Restraint", **Rail International**, July - August 1980.
17. Zaremski, A. M., "Rail Research: Meeting the Challenge of Modern Traffic Loading", Annual Meeting of the **Transportation Research Board**, January 1980. (Transportation Research Record 744).
18. Halcomb, S., & Zaremski, A. M., "Freight Car Fatigue Analysis: Guidelines and Application", **Track Train Dynamics Conference**, Chicago, IL, November 1979.
19. Lovelace, W. S., & Zaremski, A. M., "Future Directions in Track Evaluation and Inspection", **Track Train Dynamics Conference**, Chicago, IL, November 1979.
20. Zaremski, A. M., & Choros, J., "On the Measurement and Calculation of Vertical Track Modulus", **Bulletin of the American Railway Engineering Association**, Bulletin 675, Volume 81, November - December 1979.

21. Zarembski, A. M., & Choros, J., "Laboratory Investigation of Track Gauge Widening", **Bulletin of the American Railway Engineering Association**, Bulletin 676, Volume 81, January-February 1980.
22. Zarembski, A. M., McConnell, D. P., & Lovelace, W. S., "New Car for Measurement and Evaluation of Gage-Widening Resistance of Track", **American Railway Engineering Association, 79th Annual Technical Conference**, Chicago, IL, March 1980. (Bulletin 678, Volume 81, June - July 1980).
23. Kerr, A. D., & Zarembski, A. M., "The Response Equations for a Cross-tie Track", **ACTA Mechanical**, 40, 253-276, 1981.
24. Zarembski, A. M., & Choros, J., "Field Evaluation of Mainline Quality Track Using a Track Strength Test Vehicle", **Bulletin of the American Railway Engineering Association**, Bulletin 680, Volume 82, November - December 1980.
25. Zarembski, A. M., "The Track Modulus", **Roadmasters' and Maintenance of Way Association of America, Ninety-Third Annual Conference**, Chicago, IL, September 1981.
26. Zarembski, A. M., "The Direct Inspection of Track", **Railway Track and Structures**, November 1980.
27. Bhateja, R., & Zarembski, A. M., "Determination of Track Gage Widening Parameters", **International Conference on Computing in Civil Engineering**, New York, N. Y., May 1981.
28. Zarembski, A. M., & Magee, G., "An Investigation of Railroad Maintenance Practices to Prevent Track Buckling", **American Railway Engineering Association 80th Annual Technical Conference**, Chicago, IL, March 1981 (published in Bulletin 684, September 1981).
29. Webb, H. G., Wells, T., & Zarembski, A. M., "Track Maintenance Research Program: An Overview", **American Railway Engineering Association 80th Annual Technical Conference**, Chicago, IL, March 1981.
30. Zarembski, A. M., "Effect of Increasing Axle Loads on Rail Fatigue Life", **Bulletin of the American Railway Engineering Association**, Bulletin 685, Volume 83, November - December 1981.
31. Zarembski, A. M., et al, "The Effect of Increasing Axle Loads on Rail Fatigue Life", **Rail Technology: Proceedings of the Joint BR/AAR Seminar**, Frederick and Round, Nottingham, England, 1983.
32. Armstrong, Wells, Stone, & Zarembski, "Impact of Car Loads on Rail Defect Occurrences", **Second International Heavy Haul Railway Conference**, Colorado Springs, CO, September 1982.

33. Zarembski, A. M., "Performance Characteristics for Concrete Tie Fasteners", **Concrete Tie Systems for the 1980's**, Skokie, IL, November 1983.
34. Manos, Scott, Choros, & Zarembski, "Development of an Improved Vehicular Loading Characterization Associated with the Gage Strength of Track", **Bulletin of the American Railway Engineering Association**, Bulletin 686, Volume 83, January - February 1982.
35. Zarembski, A. M., "Performance Characteristics for Wood Tie Fasteners", **Bulletin of the American Railway Engineering Association**, Bulletin 697, Volume 85, October 1984, p.p. 341-369.
36. Zarembski, A. M., "The Impact of Rail Surface Defects", **Railway Track and Structures**, November 1984.
37. Zarembski, A. M., "The Economics of Rail Grinding and Rail Surface Maintenance", **Third International Heavy Haul Railway Conference**, Vancouver, British Columbia, October 1986.
38. Lamson, S. T., Zarembski, A. M., & Taylor, E. H., "Profile Grinding on CP Rail", **Joint British Rail/Association of American Railroads Seminar on Vehicle Track Interaction**, Princeton, NJ, April 1984.
39. Kerr, A. D., & Zarembski, A. M., "On the New Equations for the Cross-Tie Track Response in the Lateral Plane", **Rail International**, Number 6, 1986.
40. Zarembski, A. M., "Performance Characteristics for Concrete Tie Fasteners", **Rail International**, March 1987.
41. Zarembski, A. M., "The Relationship Between Rail Grinding and Rail Lubrication", **Second International Symposium on Wheel/ Rail Lubrication**, Memphis, TN, June 1987.
42. Zarembski, A. M., Izbinsky, G., Handal, S. N., & Worthington, W. M., "Corrugation Behavior in the Freight Railroad Environment", **American Railway Engineering Association (presented at the March 1987 Annual Conference, Chicago)**, Bulletin 712, Vol. 88, October 1987.
43. Zarembski, A. M., "The Evolution and Application of Rail Profile Grinding", **Bulletin of the American Railway Engineering Association**, Bulletin 718, Volume 89, December 1988.
44. Zarembski, A. M., "Track Maintenance Planning Using Forecasting Software", **Railway Technology International**, 1988.
45. Zarembski, A. M., & Masih, J. T. A., "On the Development of Computer Model for the Economic Analysis of Alternate Tie/Fastener Configuration", **American Railway Engineering Association (presented at the March 1989 Annual Conference, Chicago)**.

46. Newman, R. R., Zarembski, A. M., Resor, R. R., "Burlington Northern's Assessment of the Economics of High Capacity/Heavy Axle Load Cars", **Bulletin of the American Railway Engineering Association**, Bulletin 726, Volume 91, May 1990.
47. Newman, R. R., Zarembski, A. M., & Resor, R. R., "The Effect of Increased Axle Loads on Maintenance of Way and Train Operations at Burlington Northern", **International Heavy Haul Association /Transportation Research Board Workshop**, Vancouver, B.C., June 1991.
48. Zarembski, A. M., "Forecasting of Track Component Lives and its Use in Track Maintenance Planning", **International Heavy Haul Association/Transportation Research Board Workshop, Vancouver, B.C.**, June 1991.
49. Zarembski, A. M., "Track Maintenance Planning For Short Lines, Regionals", **Modern Railroads Short Lines and Regionals**, October 1988.
50. Zarembski, A. M., Palese, J. W., & Martens, J. H., " The Effect of Improved Rail Manufacturing Process on Rail Fatigue Life", **American Railway Engineering Association**, Bulletin 733, Volume 92, December 1991.
51. Newman, R. R., Zarembski, A. M., & Resor, R. R., "Economic Implications of Heavy Axle Loads on Equipment Design Operations and Maintenance", **American Society of Mechanical Engineering**, WAM, RTD-Volume 4, Rail Transportation, December 1991.
52. Zarembski, A. M., "Wood Tie Fastener Performance Requirements: The User's Points of View", **Symposium on Elastic Track Fasteners, American Railway Engineering Association**, Omaha, NE, June 1992.
53. Resor, R. R., & Zarembski, A. M., "Development of Track Maintenance Planning Models for Rail Rapid Transit Systems", **Computers in Railways III, Proceedings of the Third International Conference (COMPRAIL 92)**, Vol. I: Management (Computational Mechanics Publications, Boston, 1992).
54. Zarembski, A. M., "Rail Life Analysis and its Use in Planning Track Maintenance", **Railway Technology International, 1993**.
55. Zarembski, A. M., "Determining the Cost of Track Maintenance", **Railway Track and Structures**, April 1993.
56. Zarembski, A. M., "Transit Rail Wear Standards", **American Public Transit Association**, Miami, June 1993.
57. Zarembski, A. M., & Palese, J. W., "Rail Maintenance Planning Using Computerized Rail Forecasting Models", **Conference on Track Maintenance Practices on Suburban and Mass Transit Railways**, Hong Kong, June 1993.
58. Zarembski, A. M., "Forecasting of Future Tie Requirements by Computer Modeling", **Crossties**, July/August 1993.

59. Zaremski, A. M., & Bohara, A. P., "Controlling Rail and Wheel Wear on Commuter Operations", **American Railway Engineering Association**, Bulletin 742, Volume 94, October 1993.
60. Zaremski, A. M., & McCarthy, W. T., "Development of Non-Conventional Tie and Track Structure Inspection Systems", **Workshop on Innovations in Maintenance of Way Work Equipment, Cosponsored by Transportation Research Board and Roadmasters and Maintenance of Way Association**, Denver, CO, September 1993. Also published in "Transportation Research Record No. 1489: Rail", Railroad Transportation Research, Transportation Research Board, National Research Council, Washington, DC, 1995.
61. Zaremski, A. M., & McCarthy, W. T., "Testing Track Strength and Wood-Tie Condition", **Railway Track and Structures**, September 1993.
62. Zaremski, A. M., "Track Maintenance Costing: Alternative Approaches", **Conference on Maintaining Railway Track; Determining Cost and Allocating Resources**, Arlington, VA, October 1993.
63. Zaremski, A. M., "Concrete vs. Wood Ties: Making the Economic Choice", **Conference on Maintaining Railway Track; Determining Cost and Allocating Resources**, Arlington, VA, October 1993.
64. Zaremski, A. M., "Incremental Costs Incurred for Track Maintenance", **Conference on High Speed Trains on Freight Railroads**, Washington, D.C., November 1994.
65. Zaremski, A. M., "Computerized Maintenance Planning and Reporting Systems", **Rail Transit '95: Design, Construction and Maintenance of Transit Track and Structures**, New York, NY, June 1995.
66. Zaremski, A. M., "Development of Rail Gage Face Angle Standards to Prevent Wheel Climb Derailments", **American Railway Engineering Association Annual Technical Conference**, Chicago, IL, March 1996.
67. Zaremski, A. M., "On the Use of Timber Sleepers in Main Tracks", **World Railway Equipment and Technology Update 1996/1997**, Kensington Publications Ltd., London, England, 1996.
68. Zaremski, A. M., "On the Benefits of Rail Maintenance Grinding", **American Railway Engineering Association Annual Technical Conference**, Bulletin 760, Volume 98, Chicago, IL, March 1997.
69. Zaremski, A. M., Holfeld, D. R., and Palese, J. W., "On the Derailment of Rail Vehicles Through Turnouts: A Review of Derailment Causes and Mechanisms", **American Railway Engineering Association Turnout Symposium**, Chicago, IL, August 1996.
70. Zaremski, A. M., "Track Inspection: Knowing What is Out There", **Railway Track and Structures 1997 Track Buyers Guide**, Chicago, IL, 1997.

71. Zarembski, A. M., "Modern Rail Grinding Techniques: Selecting the Proper Grinding Approach", **Railway Gazette International**, London, England, February 1997.
72. Zarembski, A. M., Holfeld, D. R., and Palese, J. W., "Derailment of Transit Vehicles in Turnouts", **Transportation Research Board Annual Meeting**, Washington, DC, January, 1997.
73. Zarembski, A. M., "Recent Developments in Maintenance Planning Systems", **Railway Track and Structures**, Chicago, IL, February 1997.
74. Zarembski, A. M. and Holfeld, D. R., "On the Prediction of the Life of Wood Crossties", **American Woodtie Preservers Association Conference**, Pittsburgh, PA, April 1997.
75. Zarembski, A. M. and Holfeld, D. R., "On the Prediction of the Life of Wood Crossties", **Crossties Magazine**, May/June and July/August, 1997.
76. Holfeld, D. R., and Zarembski, A. M., "Knowledge Transfer: Utilizing New Technologies" **Sixth International Heavy Haul Railway Conference**, Capetown, South Africa, April 1997.
77. Zarembski, A. M., "Development and Implementation of Integrated Maintenance Planning Systems", **Transportation Research Board Annual Meeting**, Washington, DC, January, 1998.
78. Zarembski, A.M., and Gauntt, J.C., "Evaluation of Life Cycle Costs of Alternate Tie (Sleeper)/Fastener Systems and Their Use in Defining Maintenance Policy and Practice", **WCRR Conference**, Florence, Italy, November 1997.
79. Zarembski, A.M, "The Economics of Increasing Axle Loads", **European Railway Review**, London, England, June 1998.
80. Zarembski, A.M., "Enhanced Tie Condition Inspection Using Hand Held Recording Systems", **Crossties Magazine**, August 1998.
81. Zarembski, A.M., Thornton, D., Palese, J.W., Forte, N., "Development and Implementation of RailGraph; A Field Deployable Rail Maintenance Management Tool", **American Railway Engineering Maintenance Association Annual Technical Conference**, 1998.
82. Zarembski, A.M., and Paulsson, Bjorn, "Introduction of Heavy Axle Loads in Europe: Economics of 30 Tonne Axle Load Operations on the Malmbanan", **European Railway Review**, 1998
83. Zarembski, A.M, Palese, J.W., and Katz, Leonid "Implementation of a Dynamic Rail-Highway Grade Crossing Transition", **Transportation Research Board Annual Meeting**, Washington, DC, January, 1999.
84. Zarembski, A.M, "Determination of Future Crosstie Requirements from Gage Strength Measurements", **Crossties Magazine**, March/April 1999.

85. Zaremski, A.M. Chiddick, A.S. "Application of New Lubricant Formulations For The Reduction of Wheel Squeal Noise Under Freight and Passenger Service", **American Society of Mechanical Engineers Joint Technical Conference with AREMA**, September 1999
86. Zaremski, A.M., "Use of Track Strength Data in the Determination of Future Crosstie Requirements", **American Railway Engineering Maintenance Association Annual Technical Conference**, September 1999
87. Zaremski, A.M, & Palese, J.W., "Application of Maintenance of Way Information Systems to Enhance Operations and Safety". **Passenger Transport, American Public Transit Association**, October 1999.
88. Bonaventura, Clifford S., Palese, Joseph W. & Zaremski, A.M., "Intelligent System for Real-Time Prediction of Railway Response to the Interaction with Track Geometry". **American Society of Mechanical Engineers, 2000 Spring ASME/IEEE Joint Rail Conference**, April 2000.
89. Gauntt, J.C., & Zaremski, A.M., "Analysis of Wood Cross-Tie Price Sensitivities". **American Railway Engineering Maintenance Association Annual Technical Conference**, September 2000.
90. Zaremski, A.M., "The Implications of Heavy Axle Load Operations for Track Maintenance on Short Lines". **American Railway Engineering Maintenance Association Annual Technical Conference**, September 2000.
91. Zaremski, A.M., & Blaze, J., "Small Roads and Heavy Loads". **Railway Age Magazine**, April 2000.
92. Zaremski, A.M., & Kondapalli, Sunil K., "Ballast Shoulder Cleaning: Issues and Economics", submitted for publication **Railway Age Magazine**, June 2000.
93. Resor, R.R., Zaremski, A.M., & Patel, P.K., "An Estimation of the Investment in Track and Structures Needed to Handle 286,000 lb. Rail Cars on Short Line Railroads", **Transportation Research Board**, 2000.
93. Palese, J.W., & Zaremski, A.M., "BNSF Tests Risk-Based Ultrasonic Detection", published **Railway Track & Structures Magazine**, February 2001.
94. Zaremski, A.M., Palese, J.W., & Bell, J.G., "Limiting High Speed Dynamic Forces on the Track Structure; The Amtrak Acela Case", **American Railway Engineering Maintenance Association Annual Technical Conference**, Sept 2001.
96. Redden, J.W.P., Selig, E.T. & Zaremski, A.M., "Design Considerations in Stiff Track Modulus Environments", **Railway Track & Structures Magazine**. February 2002

97. Zarembski, A.M, Palese, Joseph W., and Katz, Leonid “Reduction of Dynamic Wheel/Rail Impact Forces at Grade Crossings Using Stiffness Transitions”, **American Society of Mechanical Engineers, 2001 ImechE Congress**, New York, NY, November 2001
98. Zarembski, A.M., Palese, J.W., Bell, J.G., “Controlling Track Forces during Introduction of New High Speed Trains”, **International Railway Journal**, October 2001
99. Zarembski, A.M., Turner, F., “Funding Infrastructure Upgrade Needs on Short Lines”, **Railway Age Magazine**, December 2001.
100. Turner, R., Zarembski, A.M., “Helping Shortlines Meet the Challenges of HAL”, published **Railway Track & Structures Magazine**, November 2001.
101. Lee, T., Zarembski, A.M., Weisgerber, J., “Use of New Generation Maintenance of Way Information System on Toronto Transit”, **Railway Track & Structures Magazine**, May 2002.
102. Zarembski, A.M., Parker, L.A., Palese, J.W., Bonaventura, C., “Computerized Tie Condition Inspection and Use of Tie Condition Data in Cross-Tie Maintenance Planning”, **International Heavy Haul Conference**, May 2003.
103. Zarembski, A.M., Parker, L.A., Palese, J.W., “Use of Comprehensive Tie Condition Data in Cross-Tie Maintenance Planning and Management on the BNSF”, **American Railway Engineering Maintenance Association Annual Technical Conference**, September 2002.
104. Zarembski, A.M., Gauntt, J.C., “Development of a Tie Usage Index for Matching Wood Performance and Operating Conditions”, **American Railway Engineering Maintenance Association Annual Technical Conference**, September 2002.
105. Zarembski, A.M., Bell, J.G., “Limiting the Effects of High-Speed Dynamic Forces on Track Structure”, published **TR News**, September-October 2002
106. Bonaventura, C.S., Palese, J.W., Zarembski, A.M., “Real-Time Prediction of Railway Vehicle Response to the Interaction with Track Geometry”, **International Heavy Haul Conference**, May 2003.
107. Zarembski, A.M., Blaze, J., “The Economics of Heavy Axle Loads: Costs and Benefits”, published at the **Heavy Haul: The Solution for Europe’s Future**, Paris, March 2003.
108. Zarembski, A.M., Blaze, J., “The Economics of Heavy Axle Loads: Costs and Benefits”, **International Railway Journal**, April 2003.
109. Zarembski, A.M., Palese, J.W., “Risk Based Ultrasonic Rail Test Scheduling: Practical Applications in Europe and North America, **Conference Contact Mechanics and Wear of Rail/Wheel Systems (CM2003)**, Gothenberg, Sweden, June 2003.

110. Zarembski, A.M., Resor, R. R., Patel, P, “Economics of Wayside Inspection Systems”, **2003 ASME International Mechanical Engineering Congress and Exposition (IMECE’03)**, Washington, DC, November 16-21, 2003.
111. Zarembski, A.M., Weisgerber, J., “Implementation of a New Generation of Maintenance of Way Information Systems for Transits”, **AREMA 2003 Annual Conference & Exposition**, Chicago, IL, October 5-8, 2003.
112. Bonaventura, C.S., Palese, J.W., Zarembski, A. M., “Field Evaluation and Deployment of a Track Geometry Car Based Real-Time Dynamics Simulator”, **AREMA 2003 Annual Conference & Exposition**, Chicago, IL, October 5-8, 2003.
113. Bonaventura, C.S., Zarembski, A.M., Palese, J.W., Holfeld, D.R., “Increasing Speeds through the Diverging Route of a Turnout without Increasing Lead Length”, **83rd TRB Annual Meeting**, Washington, DC, January 11-15, 2004.
114. Resor, R.R., Zarembski, A.M., Patel, P., “Factors Determining the Economics of Wayside Defect Detectors”, **83rd TRB Annual Meeting**, Washington, DC, January 11-15, 2004.
115. Bonaventura, C.S., Palese, J.W., Zarembski, A.M., “Performance of a Track Geometry Car-Based Real-Time Dynamics Simulator using Multiple Vehicle Types, **2003 ASME International Mechanical Engineering Congress and Exposition (IMECE’03)**, Washington, DC, November 16-21, 2003.
116. Blaze, J., Zarembski, A.M., “Lessons from the North American Rail/Intermodal Experience: Integrating Technical Engineering with Strategic Business Planning”, **IRCA Rail International – Schienen der Welt**, May 2004.
117. Zarembski, A.M., “Engineering of Railway Tracks”, **Kerr Symposium on Engineering Mechanics**, University of Delaware College of Engineering, Newark, DE, April 29-30, 2004.
118. Zarembski, A.M., Grissom, G.T., Henry M. Lees, “Development of Track Buckling Risk Analysis Methodology”, **AREMA 2004 Annual Conference & Exposition**, Nashville, TN, September 19-22, 2004.
119. Bonaventura, C.S., Zarembski, A.M., Palese, J.W., Holfeld, D.R., “Increasing Speeds through the Diverging Route of a Turnout Without Increasing Lead Length, **Railway Track & Structures**, July 2004
120. Palese, J.W., Euston, T. L., Zarembski, A.M., “Use of Profile Indices for Quality Control Grinding”, **AREMA 2004 Annual Conference & Exposition**, Nashville, TN, September 19-22, 2004.
121. Zarembski, A.M., Grissom, G.T., Lees, H.M., “Assessing the Risk of Track Buckling”, **Railway Track & Structures Magazine**, February 2005.

122. Bonaventura, C.S., Zarembski, A. M., Palese, J.W., "TrackSafe: A Track Geometry Car Based Real-Time Dynamics Simulator", **ASME 2005 Joint Rail Conference**, Pueblo, CO, March 16-18, 2005.
123. Palese, J.W., Zarembski, A.M., "Practical Applications of Risk Based Ultrasonic Rail Test Scheduling in Europe and North America", **Asset Management for Railway Infrastructure Asia 2005**, Singapore, February 23-24, 2005.
124. Zarembski, A.M., Holfeld, D.H., "The Importance of Safe and Efficient Railroad Operations for Coal Power Plants," **EnergyPulse**, April 11, 2005.
125. Zarembski, A.M., Palese, J.W., "Assessing and Managing Risk on the Railway Track", **International Railway Journal**, May 2005.
126. Zarembski, A.M., Palese, J.W., Euston, T.L., "Monitoring Grinding Effectiveness Using Grinding Quality Indices", **Railway Track & Structures**, June 2005
127. Gauntt, J.C., Zarembski, A.M., "On the Use of 6" x 8" Timber Cross-Ties in Low Density Heavy Axle Load Operations", **2005 AREMA Annual Conference**, Chicago, IL, September 25-28, 2005
128. Zarembski, A.M., Palese, J.W., "Characterization of Broken Rail Risk for Freight and Passenger Railway Operations", **2005 AREMA Annual Conference**, Chicago, IL, September 25-28, 2005
129. Bonaventura, C.S., Holfeld, D.R., Zarembski, A.M., Palese, J.W., "Test Results of a Modified Turnout Designed to Increase Diverging Route Speeds Without Increasing Lead Length", **2005 AREMA Annual Conference**, Chicago, IL, September 25-28, 2005
130. Zarembski, A.M., Euston, T.L., Palese, J.W., "Use of Track Component Life Prediction Models in Infrastructure Management", **AusRail Conference and Exhibition**, Sydney, November 2005
131. Bonaventura, C.S., Holfeld, D.R., Zarembski, A.M., "Optimizing Vehicle Dynamics Through a Switch While Maintaining Existing Switch Lead Length", **2006 ASME Joint Rail Conference**, Atlanta, April 2006
132. Zarembski, A.M., Palese, J.W., "Management of Broken Rail Risk" ("Gestion du risqué de rupture du rail"), **LeRail**, January 2006
133. Zarembski, A.M., Palese, J.W., Bonaventura, C.S., " Use of Hand Held Computers (PDAs) for Track Inspection and Maintenance" ("Utilisation d'ordinateurs de poche (PDA) pour le contrôle et la maintenance des voies"), **LeRail**, February/March 2006.
134. Zarembski, A.M., Palese, J.W., "Managing Risk on the Railway Infrastructure", **World Congress of Railroad Research**, Montréal, Canada, June 2006.

135. Zarembski, A.M., Bonaventura, C.S., Palese, J.W., "Real Time Analysis of Track Geometry to Control Derailment Risk", **Rail Quarterly/LeRail**, June 2006
136. Zarembski, A.M., "Advances in the Use of Hand Held Computers for Track Inspection and Maintenance Management," **Railway Track & Structures**, August 2006
137. Zarembski, A.M., Bonaventura, C.S., Holfeld, D.R., "Development of Maintenance Indices for Turnouts", **AREMA 2006 Annual Conference**, Louisville, KY, September 2006
138. Zarembski, A.M., Palese, J.W., Euston, T.L., "Using Real Time Quality Control to Manage Rail Grinding", **Interface The Journal of Wheel/Rail Interaction** (www.interfacejournal.com/features/07-06), July 2006
139. Zarembski, A.M., Gauntt, J.C., Grissom, G.T., Palese, J.W., "Field Demonstration of the Use of Track Strength Data to Optimize Tie Replacement Requirements", **AREMA 2007 Annual Conference & Exposition**, Chicago, IL, September 2007
140. Zarembski, A.M., Palese, J.W., "Use of Risk Management in Improving Track Safety", **AREMA 2007 Annual Conference & Exposition**, Chicago, IL, September 2007
141. Zarembski, A.M., Palese, J.W., "Improving Track Safety with New Generation Risk Management Tools", **Railway Track & Structures**, September 2007
142. Palese, J.W., Zarembski, A.M., "The Economics Of Heavy Axle Loads:Costs, Benefits, And Engineering Issues", **ExpoRail 2007**, India, October 2007
143. Zarembski, A.M., "Engineering and Economics Issues for Heavy Axle Load Operations", **IPWE 2008 Conference**, India, February 2008
144. Zarembski, A.M., "Use of Risk Management in Improving Track Safety", **IPWE 2008 Conference**, India, February 2008
145. Zarembski, A.M., "The Benefits of Rail Grinding", **IPWE 2008 Conference**, India, February 2008
146. Bonaventura, C.S., Zarembski, A.M., Palese, J.W., "Switch and Crossing Inspections and Maintenance Management Using Handheld Computers", **4th IET International Conference on Railway Condition Monitoring (RCM 2008)**, Derby, UK, June 2008
147. Zarembski, A.M., Cikota, J.F., "Estimating Maintenance Costs for Mixed High-Speed Passenger and Freight Rail Corridors", **TR News**, March-April 2008.
148. Zarembski, A.M., "Rail Grinding as Part of Rail Management Strategy", **Railway Track & Structures**, June 2008
149. Zarembski, A.M., Newman, G.R., "Comparative Technical and Economic Analysis of Stoneblowing vs. Tamping", **AREMA 2008 Annual Conference and Exposition**, Salt Lake City, UT, September 2008

150. Zarembski, A.M., Holfeld, D.R., "Safe and Efficient Maintenance for Utility and Mine Tracks", **Coal Transporter Magazine**, Issue 2, 2007
151. Zarembski, A.M., "New Technologies for Ballast and Track Geometry Maintenance", **Coal Transporter Magazine**, Issue 2, 2009
152. Zarembski, A.M., "Development of Guidelines for Broken Rail Risk", **Railway Track & Structures**, October 2009
153. Zarembski, A.M., "Automated Planning of Wear Based Rail Replacement", **Railway Track & Structures**, January 2010
154. Palese, J.W., Zarembski, A.M., "A Total Rail Maintenance Strategy for HAL Railways", **IPWE**, India, 2010.
155. Zarembski, A.M., Patel, P. K., "Estimating Maintenance Costs For Mixed Higher Speed Passenger and Freight Rail Corridors", **ASME/IEEE/AREMA Joint Rail Conference 2010**, Urbana, IL, April 2010.
156. Zarembski, A.M., "Management of Broken Risk for High Speed Passenger Rail", **ASME/IEEE/AREMA Joint Rail Conference 2010**, Urbana, IL, April 2010.
157. Zarembski, A.M., Bonaventura, C.S., "Dynamic Effects of Track Surface Condition on Vertical Wheel/Rail Forces and Energy Consumption", **ASME/IEEE/AREMA Joint Rail Conference 2010**, Urbana, IL, April 2010.
158. Zarembski, A.M., Palese, J.W., "Evaluation of the Effectiveness of Rail Grinding on Reducing Rail Defects on North American Class 1 Railroad", **AREMA 2010 Annual Conference and Exposition**, Orlando, FL, August 2010
159. Holfeld, D.R., Bonaventura, C.S., Zarembski, A.M., "Field Results of a Modified Turnout Designed to Increase Diverging Route Speeds without Increasing Lead Length", **AREMA 2010 Annual Conference and Exposition**, Orlando, FL, August 2010
160. Zarembski, A.M., "Grinding of Turnouts and Special Trackwork" **Railway Track & Structures**, June 2010
161. Zarembski, A.M., Rail Maintenance Planning and Management Using State of the Art Maintenance Management Software, **International Railway Journal**, November 2010.
162. Zarembski, A.M., "High Speed Rail Grinding for High Speed Rail", **7th World Congress on High Speed Rail**, Beijing, China, December 2010.
163. Zarembski, A.M., Palese, J. W., "Does Rail Grinding Reduce Rail Defects", **RT&S**, February 2011
164. Zarembski, A.M., "Engineering Higher Speed Rail", **Railway Age**, March 2011

165. Zarembski, A.M., Euston, T.E., Palese, J.W., “Development, Implementation, and Validation of an Automated Turnout Inspection Vehicle”, **IHHA 2011**, Calgary, Canada, June 2011
166. Bonaventura, C.S., Zarembski, A.M., Palese, J.W., “Determination of Optimum Intervention Time for Track Surfacing Based on Economic Minimization of Maintenance Costs”, **IHHA 2011**, Calgary, Canada
167. Zarembski, A.M., “Management of Total Rail Grinding Maintenance Process”, **Railway Track & Structures**, June 2011
168. Zarembski, A.M., Palese, J.W., Euston, T.L., Scheiring, W.R., “Development and Implementation of Automated Switch Inspection Vehicle”, **2011 AREMA Annual Conference**, Minneapolis, MN, September 2011
169. Zarembski, A.M., Hagan, B., “Effectiveness of High Speed Rail Grinding on Metal Removal and Grinding Productivity”, **2011 AREMA Annual Conference**, Minneapolis, MN, September 2011
170. Euston, T.L., Zarembski, A.M., Hartsough, C.M., Palese, J.W., “Analysis Of Wheel-Rail Contact Stresses Through A Turnout”, **2012 ASME Joint Rail Conference**, Philadelphia, PA, April 2012
171. Zarembski, A.M., “High-Speed Rail Grinding and Metal Removal”, **Railway Track & Structures**, June 2012
172. Schobel, A., Maly, T. and Zarembski, A. M., “Mitigation Matrices for Derailment Prevention” **21st International Symposium on Electronics in Transport** , Ljubljana, Slovenia, March 2013.
173. Zarembski, A. M., Grissom, G. T. , and Euston, T. L. , “Use of Ballast Inspection Technology for the Prioritization, Planning and Management of Ballast Delivery and Placement” **American Railway Engineering Association Annual Conference**, Indianapolis, IN, September 2013
174. Zarembski A. M. and Zhi, S. D. , “Analyzing Rail Grinding Patterns”, **Railway Track and Structures**, June 2013.
175. Zarembski A. M. “Expanding Railroad Education”, **Railway Track and Structures**, June 2013.
176. Zhi, S. D. and Zarembski, A. M. , “Towards a Better Understanding of the Rail Grinding Mechanism” **ASME 2013 Rail Transportation Division Fall Technical Conference**, RTDF2013, October 2013, Altoona, PA
177. Zarembski, A. M., Grissom, G. T. , and Euston, T. L. , “On the Use of Ballast Inspection Technology for the Management of Track Substructure” **Journal of Transportation Infrastructure Geotechnology**, Volume 1, Issue 1 (2014), Page 83-109.

178. Zarembski A. M., “Improving Inspection of Turnouts”, **Railway Track and Structures**, November 2013.
179. Zarembski, A. M. and Kerchof, B., “Development of Hand Gauges for Inspection of Switch Points to Prevent Wheel Climb” **Railway Track and Structures**, July 2014.
180. Zarembski, A. M., Grissom, G. T., Euston, T. E., and Cronon J. J., “Does Missing Ballast Result in the Development of Track Geometry Defects”, **Railway Track & Structures**, April 2015.
181. Shaodan Z, Jianyong L, and Zarembski, A. M. ; “Predictive Modeling for Rail Grinding Process Using Distributed Cutting Grain Approach” accepted for publication by **Journal of Rail and Rapid Transit** Published on-line Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit 0954409715605139, first published on September 30, 2015 as doi:10.1177/0954409715605139
182. Zarembski, A. M., “Big Data in Railroad Engineering”, **IEEE BigData Conference**, Washington DC, October 2014
183. Shaodan Z, Jianyong L, and Zarembski, A. M. ; “Grinding Motor Energy Saving Method Based on Material Removal Model in Rail Grinding Process” **International Journal of Precision Engineering and Manufacturing-Green Technology**, January 2015.
184. Palese, J. W., Zarembski, A. M., Hartsough, C. M., Ozturk, S.; “ Use of Switch Profile Data for Enhanced Analysis of Wheel Rail Behavior at Switch Point” **International Heavy Hauls Railways Association Conference**, Perth, Western Australia, June 2015.
185. Zarembski, A. M., Grissom, G. T., Euston, T. E., and Cronon J. J., “Relationship Between Missing Ballast and Development of Track Geometry Defects”, **Journal of Transportation Infrastructure Geotechnology**, Volume 2 No. 4., pp 167-176, December, 2015.
186. Zarembski, A. M., Attoh-Okine, N., Einbinder, D., “On the Relationship between Track Geometry Defects and Development of Internal Rail Defects”. **World Congress on Railway Research**, Milan, Italy, May 2016.
187. Zarembski, A. M., Grissom, G. T., Euston, T. E., and Cronon J. J., “On the Relationship Between Missing Shoulder Ballast and Development of Track Geometry Defects”, **World Congress on Railway Research**, Milan, Italy, May 2016.
188. Palese, J. W. and Zarembski, A. M., “Rail Grinding for Rail Transit Systems” *Engineering* a Journal of the Chinese Academy of Engineering (CAE). Accepted for publication December 2015.
189. Zarembski, A. M., Attoh-Okine, N, Einbinder, D. , “Using Multiple Adaptive Regression to Address the Impact of Track Geometry on Development of Rail Defects”, submitted to **Journal of Construction and Building Materials**

190. Zarembski, A. M., Attoh-Okine, N, Einbinder, D., Thomposon, H., Sussman, T. “How Track Geometry Defects Affect the Development of Rail Defects”, **American Railway Engineering Association Annual Conference**, Orlando, FL, August 2016