

Publication List

(State of March 2010)

A Patents

- [1] J. Ackermann, “Verfahren zum Lenken von Straßenfahrzeugen mit Vorder- und Hinterradlenkung. (Method of steering road vehicles having front-wheel and rear-wheel steering).” German Patent P 4028 320, European Patent 0474 130, US Patent 5 375 057, Japan Patent 3158 347 (Priority Sept. 6, 1990).
- [2] J. Ackermann, “Verfahren zum Lenken von Straßenfahrzeugen mit Vorder- und Hinterradlenkung.” German Patent 4206654, European Patent 0559 114, US Patent 5 515 275 (Priority March 3, 1992).
- [3] J. Ackermann, “Verfahren zum Lenken von Straßenfahrzeugen mit Vorderradlenkung.” German Patent 4307420, European Patent 0614 795, US Patent 5 428 536, Japanese Patent 2704 602 (Priority March 9, 1993).
- [4] J. Ackermann, “Verfahren zur Lenkunterstützung eines Fahrers eines Straßenfahrzeugs.” German Patent 19650691, European Patent 0846610, US Patent 5925083 (Priority Dec. 7, 1996).
- [5] J. Ackermann, T. Bünte, J. Dietrich, B. Gombert, B. Willberg, “Aktuator zum Korrigieren eines über das Lenkrad an die Räder einer gelenkten Fahrzeugachse eingegebenen Lenkwinkels”, German Patent 19750585, European Patent 0916568 (Priority Nov. 17, 1997).
- [6] J. Ackermann, “Verfahren zur Vorgabe einer gewünschten geschwindigkeits - abhängigen Gierdämpfung bei der Fahrzeuglenkung (Method of assignment of a desired velocity-dependent yaw damping for vehicle steering).” German Patent Application 10206730.9 (Priority Feb. 18, 2002).

B Books

- [7] J. Ackermann, *Abtastregelung / Sampled-data Control Systems*, Springer-Verlag. 3 German editions (1972, 1983, 1988), English (1985), Polish (1976), Chinese (1991).
- [8] J. Ackermann (editor), *Uncertainty and Control*, Springer Lecture Notes in Control and Information Science, 1985.
- [9] J. Ackermann, A. Bartlett, D. Kaesbauer, W. Sienel, and R. Steinhauser, *Robuste Regelung / Robust Control*, Springer-Verlag, German (1993), English (1993).

- [10] J. Ackermann, P. Blue, T. Bünte, L. Güvenc, D. Kaesbauer, M. Kordt, M. Muhler and D. Odenthal, *Robust Control: The Parameter Space Approach*, Springer-Verlag, London 2002.

C Plenary and Keynote Lectures

- [11] J. Ackermann, “Design of robust controllers by multi-model methods,” *International Symposium on the Mathematical Theory of Networks and Systems*, Stockholm, Sweden, 1985.
- [12] J. Ackermann, “Robustness issues in practical control system design problems”, *MacKay Lecture Series*, University of California, Berkeley 1990.
- [13] J. Ackermann, “Design by Search: CAD for dynamics and robust control design”, *The Annual Harry Lynde Bradley Distinguished Lecture in Electrical Engineering*, Virginia Polytechnic Institute, 1990.
- [14] J. Ackermann, “Uncertainty structures and robust stability analysis”, *First European Control Conference*, Grenoble, France, 1991.
- [15] J. Ackermann, “Problems of individual transportation: From a two-mass model to a one-mass model of car steering,” *International Symposium on the Mathematical Theory of Networks and Systems*, Regensburg, Germany, 1993.
- [16] J. Ackermann, “Robust control for four-wheel steering cars”, *International Conference on Control Theory and its Applications*, Kibbutz Maale HaChamisha, Israel, 1993.
- [17] J. Ackermann, “Vehicle dynamics - an overview”, *Proc. IFAC Workshop on Advances in Automotive Control*, Ascona, Switzerland, 1995.
- [18] J. Ackermann, “Safe and comfortable travel by robust control”, *Third European Control Conference*, Rome, Italy, 1995.
- [19] J. Ackermann, “Safer car driving by robust steering control”, *IEE International Conference on Control '96*, Exeter, UK, 1996.
- [20] J. Ackermann, “Robust control prevents car skidding”, Bode Lecture, *IEEE Conference on Decision and Control*, Kobe, Japan, 1996.
- [21] J. Ackermann, “Safe car driving by robust steering control”, *Midwest Control Symposium at Ohio State University, Columbus*, 1996.
- [22] J. Ackermann, “Robust control supports drivers and pilots”, *8th Annual Zaborsky Lecture Series*, Washington University, St. Louis, 1997.
- [23] J. Ackermann, “Active Steering for Better Safety, Handling and Comfort”, *Proc. IEEE-INRIA Conference on Advances in Vehicle Control and Safety*, Amiens, France, July 1998.

- [24] J. Ackermann, “Die Schrecksekunde: Regelung kann helfen”, *34. Regelungstechnisches Kolloquium*, Boppard, February 2000.
- [25] J. Ackermann, “The human reaction time - what can control do to overcome it?” *Keynote lecture at “25 years of nonlinear control at Ecole des Mines de Paris”*, March 2001.
- [26] J. Ackermann, “The human reaction time: What can control do to overcome it?” *6th Biennial Conference on Engineering Systems Design and Analysis*, Istanbul, July 2002.

D Publications

- [27] J. Ackermann, “Über die Prüfung der Stabilität von Abtast-Regelungen mittels der Beschreibungsfunktion,” *Regelungstechnik*, vol. 9, pp. 467–471, 1961.
- [28] J. Ackermann, “Die Stabilität von Abtast-Regelkreisen,” *Jahrbuch der wissenschaftlichen Gesellschaft für Luft- und Raumfahrt*, pp. 308–313, 1962.
- [29] J. Ackermann, “Eine Bemerkung über notwendige Bedingungen für die Stabilität von linearen Abtastsystemen,” *Regelungstechnik*, vol. 12, pp. 308–309, 1964.
- [30] J. Ackermann, “Über einen Zusammenhang zwischen der Beschreibungsfunktion und der Methode von V.M. Popov,” *Regelungstechnik*, vol. 13, pp. 547–549, 1965.
- [31] J. Ackermann, “Beschreibungsfunktionen für die Analyse und Synthese von nicht-linearen Abtast-Regelkreisen,” *Regelungstechnik*, vol. 14, pp. 497–504, 1966.
- [32] J. Ackermann, “Anwendung der Wiener-Filtertheorie zum Entwurf von Abtastreglern mit beschränkter mittlerer Stelleistung,” *Regelungstechnik*, vol. 16, pp. 353–359, 1968.
- [33] J. Ackermann, “Zeitoptimale Mehrfach-Abtastregelungssysteme,” *IFAC-Symposium Mehrgrößen-Regelssysteme*, Düsseldorf, 1968.
- [34] J. Ackermann, “Über die Lageregelung von drallstabilisierten Körpern,” *Zeitschrift für Flugwissenschaft*, vol. 17, pp. 199–207, 1969.
- [35] J. Ackermann and R. Bucy, “Über die Anzahl der Parameter von Mehrgrößensystemen,” *Regelungstechnik*, vol. 18, pp. 451–452, 1970.
- [36] J. Ackermann and R. Bucy, “Canonical minimal realization of a matrix of impulse response sequences,” *Information and Control*, vol. 19, pp. 224–231, 1971.
- [37] J. Ackermann, “Die minimale Ein-Ausgangsbeschreibung von Mehrgrößensystemen und ihre Bestimmung aus Ein-Ausgangsmessungen,” *Regelungstechnik*, vol. 19, pp. 203–206, 1971.

- [38] J. Ackermann, “Der Entwurf linearer Regelungssysteme im Zustandsraum,” *Regelungstechnik*, vol. 20, pp. 297–300, 1972.
- [39] J. Ackermann, “On partial realizations,” *IEEE Trans. on Automatic Control*, vol. 17, p. 381, 1972.
- [40] J. Ackermann, “On minimal realizations,” in *Advances in Cybernetics and Systems Research* (F. Pichler, ed.), London: Transcripta Books, 1973.
- [41] J. Ackermann and G. Hirzinger, “Sampling frequency and controllability region,” *Computers and Electrical Engineering*, vol. 2, pp. 347–351, 1975.
- [42] J. Ackermann, “On the synthesis of multivariable systems,” in *Proc. 6th IFAC Congress*, (Boston), 1975.
- [43] J. Ackermann, “Einführung in die Theorie der Beobachter,” *Regelungstechnik*, vol. 24, pp. 217–226, 1976.
- [44] J. Ackermann, “On the synthesis of linear control systems with specified characteristics,” *Automatica*, vol. 13, pp. 89–94, 1977.
- [45] J. Ackermann, “Entwurf durch Polvorgabe,” *Regelungstechnik*, vol. 25, pp. 173–179, 209–215, 1977.
- [46] J. Ackermann, “A robust control system design,” in *Proc. Joint Automatic Control Conference*, (Denver), pp. 877–883, 1979.
- [47] J. Ackermann, “Parameter space design of robust control systems,” *IEEE Trans. on Automatic Control*, vol. 25, pp. 1058–1072, 1980.
- [48] J. Ackermann, “Robust flight control design,” in *Proc. 8th IFAC Congress*, vol. VIII, (Kyoto), pp. 79–84, 1981.
- [49] J. Ackermann and D. Kaesbauer, “D-decomposition in the space of feedback gains for arbitrary pole regions,” in *Proc. 8th IFAC Congress*, vol. IV, (Kyoto), pp. 12–17, 1981.
- [50] S. Franklin and J. Ackermann, “Robust flight control: a design example,” *AIAA J. Guidance and Control*, vol. 4, pp. 597–605, 1981.
- [51] J. Ackermann and S. Türk, “A common controller for a family of plant models,” in *Proc. 21st IEEE Conf. Decision and Control*, (Orlando), pp. 240–244, 1982.
- [52] J. Ackermann, “Einsatzmöglichkeiten für Roboter,” *DFVLR-Nachrichten*, vol. 39, pp. 13–15, 1983.
- [53] J. Ackermann, “Entwurfsverfahren für robuste Regelungen,” in *Berichtsband f. Interkama-Kongreß Springer-Verlag*, (Berlin), 1983.
- [54] J. Ackermann, “Robustness against sensor failures,” *Automatica*, vol. 20, pp. 211–215, 1984.

- [55] J. Ackermann, “Entwurfsverfahren für robuste Regelungen,” *Regelungstechnik*, vol. 32, pp. 143–150, 1984.
- [56] J. Ackermann, “Finite effect sequences - a control oriented system description,” in *9th World IFAC Congress*, vol. VIII, (Budapest), pp. 59–64, 1984.
- [57] J. Ackermann, “Simultaneous stabilization of two plant models,” in *Proc. Pre-IFAC Meeting on Current Trends in Control*, (Dubrovnik-Cavtat), 1984.
- [58] J. Ackermann, “Multi-model approaches to robust control system design,” in *Uncertainty and Control, Lecture Notes in Information Science 70*, pp. 108–130, Berlin: Springer, 1985.
- [59] J. Ackermann, “Entwurf robuster Regelungssysteme durch simultane Polgebietsvorgabe für eine Familie von Regelstrecken,” in *Proc. 30. Internationales Wissenschaftliches Kolloquium*, (Ilmenau), pp. 3–6, 1985.
- [60] J. Ackermann, “Multi-model approaches to robust control system design,” in *Proc. IFAC Workshop on Model Error Concepts and Compensation*, (Boston), 1985.
- [61] J. Ackermann, “Design of robust controllers by multi-model methods,” in *C. Byrnes, A. Lindquist (eds.), Modelling Identification and Robust Control*, North-Holland, Amsterdam 1986.
- [62] J. Ackermann, “Robuste Regelung: Beispiele - Parameterraum-Verfahren,” in *Proc. GMR-Aussprachetag Robuste Regelung*, (Langen), 1986.
- [63] J. Ackermann, “Research Survey. DFVLR Laboratory for Flight Systems Dynamics,” *Automatica*, vol. 23, pp. 409–411, 1987.
- [64] A. MacFarlane, G. Grübel, and J. Ackermann, “Future design environments for control engineering,” in *Proc. 10th IFAC World Congress on Automatic Control*, vol. VII, (Munich), pp. 235–246, 1987.
- [65] J. Ackermann and R. Münch, “Robustness analysis in a plant parameter plane,” in *Proc. 10th IFAC World Congress on Automatic Control*, vol. VIII, (Munich), pp. 230–234, 1987.
- [66] J. Ackermann and B. Barmish, “Robust Schur stability of a polytope of polynomials,” *IEEE Trans. on Automatic Control*, vol. 33, pp. 984–986, 1988.
- [67] J. Ackermann, D. Kaesbauer, and H. Hu, “Entwurf robuster Regelungssysteme durch simultane Polgebietsvorgabe für eine Familie von Regelstrecken”, in *Proc. 33. Int. Wissensch. Kolloquium Techn. Kybernetik/Automatisierungstechnik*, (Ilmenau), 1988.
- [68] J. Ackermann, H.Z. Hu and D. Kaesbauer, “Robustness analysis: a case study”, *Proc. 27th IEEE Conf. on Decision and Control*, Austin, Texas, Dec. 1988, pp. 86–91

- [69] J. Ackermann and P. Wirth, “Model verification and refinement by experiments with finite effect sequences,” in *Dynamics of Controlled Mechanical Systems* (G. Schweitzer and M. Mansour, eds.), pp. 1–14, Berlin: Springer, 1989.
- [70] J. Ackermann and W. Sienel, “Computer-aided robustness analysis for characteristic polynomials with polynomial parameter dependence,” in *Proc. IEEE Conf. Decision and Control*, (Tampa), pp. 1934–1935, 1989.
- [71] A. MacFarlane, G. Grübel, and J. Ackermann, “Future design environments for control engineering,” *Automatica*, vol.25, No. 2, pp. 165–176, 1989.
- [72] J. Ackermann, B. Anderson, C. Hollot, and P. Khargonekar, “Panel discussion: New trends in robustness analysis,” in *Proc. IEEE Conf. Decision and Control*, (Tampa), pp. 2278–2279, 1989.
- [73] J. Ackermann, H. Hu, and D. Kaesbauer, “Robustness analysis: a case study,” *IEEE Trans. on Automatic Control*, vol. 35, pp. 352–356, 1990.
- [74] J. Ackermann and W. Sienel, “What is a ‘large’ number of parameters in robust systems,” in *Proc. IEEE Conf. Decision and Control*, (Honolulu), pp. 3496–3497, 1990.
- [75] J. Ackermann, “Robust car steering by yaw rate control,” in *Proc. IEEE Conf. Decision and Control*, (Honolulu), pp. 2033–2034, 1990.
- [76] J. Ackermann, C. Hollot, H. Hu, and R. Tempo, “On extreme-point results for time-delay systems,” in *Proc. American Control Conference*, (San Diego), pp. 1499–1501, 1990.
- [77] J. Ackermann and W. Sienel, “Robust control for automatic steering,” in *Proc. American Control Conference*, (San Diego), pp. 795–800, 1990.
- [78] J. Ackermann and H. Hu, “Robustness of sampled-data control systems with uncertain physical plant parameters,” in *Proc. 11th IFAC World Congress*, vol. 5, (Tallinn), pp. 194–199, 1990.
- [79] J. Ackermann and W. Darenberg, “Automatic track control of a city bus,” *IFAC Theory Report on Benchmark Problems for Control Systems Design*, 1990.
- [80] B. Barmish, J. Ackermann, and H. Hu, “The tree structured decomposition: a new approach to robust stability analysis,” in *Proc. Conf. on Information Sciences and Systems*, (Princeton), 1990, pp. 133–139.
- [81] D. Kaesbauer and J. Ackermann, “The distance from stability or gamma-stability boundaries,” in *Proc. 11th IFAC Congress*, (Tallinn), pp. 130–134, 1990.
- [82] J. Ackermann, D. Kaesbauer, and R. Münch, “Robust Γ -stability analysis in a plant parameter space,” *Automatica*, vol. 27, pp. 75–85, 1991.

- [83] J. Ackermann and H. Hu, “Robustness of sampled-data control systems with uncertain physical plant parameters,” *Automatica*, vol. 27, pp. 705–710, 1991.
- [84] J. Ackermann and W. Sienel, “On the computation of value sets for robust stability analysis,” in *Proc. First European Control Conference*, (Grenoble), pp. 2318–2327, 1991.
- [85] J. Ackermann, D. Kaesbauer, and W. Sienel, “Design by search,” in *Proc. First IFAC Symposium on Design Methods of Control Systems, vol. 1*, (Zürich), pp. 181–186, 1991.
- [86] J. Ackermann, “Robust car steering by yaw rate feedback,” in *Control of Uncertain Dynamic Systems* (S. Bhattacharyya and L. Keel, eds.), pp. 125–139, CRC Press, 1991.
- [87] J. Ackermann and A. Wilde, “Robustness of sampled-data control systems,” in *Proc. First European Control Conference*, (Grenoble), pp. 534–537, 1991.
- [88] J. Ackermann, “Uncertainty structures and robust stability analysis,” in *Proc. First European Control Conference*, (Grenoble), pp. 2318–2327, 1991.
- [89] H. Hu, C. Hollot, R. Tempo, and J. Ackermann, “Absence of extreme-point results in sampled-data control systems,” in *Proc. First European Control Conference*, (Grenoble), pp. 1356–1359, 1991.
- [90] J. Ackermann, “Robust yaw damping of cars with front and rear wheel steering,” in *Proc. IEEE Conf. Decision and Control*, (Tucson, Arizona), pp. 2586–2589, 1992.
- [91] J. Ackermann, “Velocity-independent yaw eigenvalues of four-wheel steering automobiles,” in *Robustness of Dynamic Systems with Parameter Uncertainties* (M. Mansour, ed.), pp. 291–302, Basel: Birkhäuser, 1992.
- [92] J. Ackermann, “Does it suffice to check a subset of multilinear parameters in robustness analysis?,” *IEEE Trans. on Automatic Control*, vol. 37, pp. 487–488, 1992.
- [93] J. Ackermann and W. Sienel, “Robust yaw damping of cars with front and rear wheel steering,” *IEEE Trans. on Control Systems Technology*, vol. 1, no. 1, pp. 15–20, 1993.
- [94] J. Ackermann, “Robust nonlinear decoupling and yaw stabilization of 4 WS cars,” in *Proc. 12th IFAC World Congress, vol. 1*, (Sydney), pp. 7–10, 1993.
- [95] J. Ackermann, W. Sienel, and R. Steinhauser, “Robust automatic steering of a bus,” in *Proc. Second European Control Conference*, vol. 3, (Groningen, The Netherlands), pp. 1534–1539, 1993.
- [96] J. Ackermann, “Robustness of sampled-data control systems with physical uncertainties in the continuous part,” in *Fundamentals of discrete-time systems, a tribute to Professor Elishu I. Jury* (M. Jamshidi *et al.*, ed.), pp. 29–36, Albuquerque: TSI Press, 1993.

- [97] J. Ackermann, “Robust decoupling, ideal steering dynamics, and yaw stabilization of four-wheel steering cars,” *Automatica* 30, pp. 1761–1768, 1994.
- [98] J. Ackermann, “Robust decoupling of car steering dynamics with arbitrary mass distribution,” in *Proc. American Control Conference*, vol. 2, (Baltimore, USA), pp. 1964–1968, 1994.
- [99] J. Ackermann, “Parameter space design methods for analysis and design of robust control,” in *Proc. Robust and Adaptive Control Tutorial Workshop*, (Dublin), 1994.
- [100] W. Sienel and J. Ackermann, “Automatic steering of vehicles involving feedforward of the estimated track curvature,” in *Proc. American Control Conference*, Baltimore, pp. 1957–1958, 1994.
- [101] J. Ackermann, “Yaw rate and lateral acceleration feedback for four-wheel steering,” in *Proc. Symp. on Advanced Vehicle Control*, (Tsukuba, Japan), pp. 165–170, 1994.
- [102] J. Ackermann and V. Utkin, “Sliding mode control design based on Ackermann’s formula,” in *Proc. The 33rd IEEE Conf. on Decision and Control*, (Lake Buena Vista, Florida, USA), 1994.
- [103] J. Ackermann, J. Guldner, and V.I. Utkin, “A robust nonlinear control approach to automatic path tracking of a car,” in *Proc. IEE Int. Conf. Control ’94*, (Coventry, UK), pp. 196–201, March 1994.
- [104] J. Guldner, V.I. Utkin, and J. Ackermann, “A sliding mode approach to automatic car steering,” in *Proc. American Control Conference*, (Baltimore, MA, USA), pp. 1969–1973, 1994.
- [105] J. Ackermann and X. Hu, “Acceleration and braking effects on robustly decoupled car steering,” in *Proc. Third European Control Conference*, (Rom), pp. 737–748, 1995.
- [106] J. Ackermann, “Safe and comfortable travel by robust control, in *A. Isidori (ed.), Trends in Control: A European Perspective*, Springer, Berlin, pp. 1–16, 1995.
- [107] J. Guldner, V.I. Utkin, J. Ackermann and T. Bünte, “Sliding mode control for active steering of cars, *Proc. IFAC Workshop on Advances in Automotive Control*, Ascona, 1995.
- [108] J. Ackermann, J. Guldner, W. Sienel, R. Steinhauser, and V.I. Utkin, “Linear and nonlinear controller design for robust automatic steering,” *IEEE Trans. on Control Systems Technology, Special Issue on Automotive Control Systems*, pp. 132–143, 1995.
- [109] J. Ackermann and T. Bünte, “Automatic car steering control bridges over the driver reaction time”, *3rd IEEE Mediterranean Conference on Control and Automation*, Cyprus, pp. 293–300, 1995.

- [110] J. Ackermann, T. Bunte, W. Sienel, H. Jeebe, and K. Naab, “Fahrer-sicherheit durch robuste Lenkregelung”, *Automatisierungstechnik*, pp. 219–225, 1996.
- [111] J. Ackermann, “Yaw disturbance attenuation by robust decoupling of car steering”, *Proc. 13th IFAC World Congress*, (San Francisco), vol. Q, pp. 1–6, 1996.
- [112] J. Ackermann and J. Mari, “Output shaping for robust decoupling”, *Proc. 13th IFAC World Congress*, (San Francisco), vol. G, pp. 411–416, 1996.
- [113] J. Ackermann, T. Bunte, W. Sienel, H. Jeebe and K. Naab, “Safety by robust steering control”, *Proc. International Symposium on Advanced Vehicle Control*, Aachen, vol. 1, pp. 377–394, 1996.
- [114] J. Ackermann and T. Bunte, “Handling improvement for robustly decoupled car steering dynamics”, *Proc. 4th IEEE Mediterranean Conference on Control and Automation*, Crete, pp. 83–88, 1996.
- [115] W. Sienel, T. Bunte and J. Ackermann, “PARADISE - Parametric Robust Analysis and Design Interactive Software Environment: A Matlab-Based Robust Control Toolbox”, *Proc. of the 1996 IEEE Internat. Symposium on Computer-Aided Control System Design*, Dearborn, Mi, Sept. 15-18, pp. 380–385, 1996.
- [116] W. Sienel, J. Ackermann and T. Bunte, “Robust Control goes PARADISE”, *Proc. EURACO-Workshop “Control of nonlinear systems: Theory and Applications”*, Algarve, Portugal, pp. 129–138, 1996.
- [117] J. Ackermann, “Regelungstechnik im Auto”, Editorial, *Automatisierungstechnik*, 44, no. 5, pp. 199–200 and no. 7, pp. 113, 1996.
- [118] J. Ackermann and T. Bunte, “Automatic car steering control bridges over the driver reaction time”, *Kybernetika*, 1, 33, pp. 61–74, 1997.
- [119] J. Ackermann and T. Bunte, “Robust Prevention of Limit Cycles for Robustly Decoupled Car Steering Dynamics”, *Proc. 5th IEEE Mediterranean Conference on Control and Systems*, Paphos, Cyprus, 1997.
- [120] J. Ackermann and T. Bunte, “Actuator rate limits in robust car steering control”, *Proc. 36th IEEE Conf. Decision and Control*, Dec., 1997, San Diego, USA.
- [121] J. Ackermann, “Robust control prevents car skidding”, *IEEE Control Systems Magazine*, 1997, June, 23-31, *Bode Prize Lecture 1996*.
- [122] J. Ackermann and T. Bunte, “Yaw disturbance attenuation by robust decoupling of car steering”, *Control Engineering Practice*, Aug., 5, pp. 1131–1136, 1997.
- [123] J. Ackermann, “Robust control prevents car skidding”, *Proc. COSY Workshop*, 1997, 92-111, Jan., Zürich.

- [124] J. Guldner and W. Sienel and J. Ackermann and S. Patwardhan and H.-S. Tan and T. Bünte, “Robust control design for automatic steering based on feedback of front and tail lateral displacement”, *Proc. 4th European Control Conference*, 1997, Brussels, Belgium.
- [125] W. Sienel and J. Ackermann and T. Bünte, “Design and Analysis of Robust Control Systems in PARADISE”, *Proc. IFAC Symposium on Robust Control Design*, Budapest, Hungary, 1997.
- [126] J. Ackermann and V.I. Utkin, “Sliding mode control design based on Ackermann’s formula”, *IEEE Trans. on Automatic Control*, vol. 43, pp. 234–237, 1998.
- [127] L. Wang and J. Ackermann, “Robustly stabilizing PID controllers for car steering systems”, *Proc. American Control Conference Philadelphia*, June 1998.
- [128] D. Kaesbauer and J. Ackermann, “Non-fragile controller design in parameter space”, *Proc. American Control Conference*, Philadelphia, June 1998.
- [129] J. Ackermann, “Robust unilateral decoupling of the influence of the yaw motion on the lateral acceleration of a car”, *Proc. Internat. Conf. on Advances in Vehicle Control and Safety*, Amiens, France, pp. 105-111, July 1998.
- [130] J. Ackermann, “Active steering for better safety, handling and comfort”, *Proc. Internat. Conf. on Advances in Vehicle Control and Safety*, Amiens, France, pp. 1-10, July 1998.
- [131] J. Ackermann and T. Bünte, “Handling improvement of robust car steering”, *Proc. Internat. Conf. on Advances in Vehicle Control and Safety*, Amiens, France, pp. 112-117, July 1998.
- [132] J. Ackermann and D. Odenthal, “Robust steering control for active rollover avoidance of vehicles with elevated center of gravity”, *Proc. Internat. Conf. on Advances in Vehicle Control and Safety*, Amiens, France, pp. 118-123, July 1998.
- [133] J. Guldner, W. Sienel, H.-S. Tan, J. Ackermann, S. Patwardhan and T. Bünte, “Robust automatic steering control for look-down reference systems with front and rear sensors”, *IEEE Trans. on Control Systems Technology*, vol. 7, pp. 2-11, 1999.
- [134] J. Ackermann and T. Bünte, “Robust prevention of limit cycles for robustly decoupled car steering dynamics”, *Kybernetika*, 35(1), pp. 105–116, 1999.
- [135] J. Ackermann, T. Bünte and D. Odenthal, “Advantages of active steering for vehicle dynamics control”, *Proc. 32nd International Symposium on Automotive Technology and Automation*, Vienna, 1999.
- [136] D. Kaesbauer and J. Ackermann “Fragility and stabilizing directions in controller parameter space”, *Proc. European Control Conf.*, Karlsruhe, Aug. 31 - Sept. 3, 1999.

- [137] N.P.I. Aneke, J. Ackermann, T. Bünte and H. Nijmeijer, “Application of nonlinear disturbance decoupling to active car steering”, *European Control Conf.*, Karlsruhe, Aug. 31 - Sept. 3, 1999.
- [138] D. Odenthal, T. Bünte and J. Ackermann, “Nonlinear steering and braking control for vehicle rollover avoidance”, *Proc. European Control Conf.*, Karlsruhe, Aug. 31 - Sept. 3, 1999.
- [139] J. Ackermann and D. Odenthal, “Damping of vehicle roll dynamics by speed-scheduled active steering”, *Proc. European Control Conf.*, Karlsruhe, Aug. 31 - Sept. 3, 1999.
- [140] J. Ackermann, “Robust control for car steering”, in *Topics in Control and Its Application* (eds D.E. Miller and L. Qiu), Springer-Verlag 1999, pp. 1–15.
- [141] L. Wang and J. Ackermann, “Positivity and stabilization of driver support systems”, *Control and Cybernetics*, vol. 28, pp. 54–59, 1999.
- [142] M. Kordt and J. Ackermann, “Nonlinear model reduction-method and CAE-tool development”, *Proc. MATHMOD*, Vienna, Feb. 2000.
- [143] M. Muhler and J. Ackermann, “Representing multiple objectives in parameter space using color coding”, *Proc. 3rd IFAC Symposium on Robust Control Design*, Prague, June 2000.
- [144] J. Ackermann and D. Kaesbauer, “Entwurf robuster PID-Regler”, *Proc. GMA-Workshop “Theoretische Verfahren der Regelungstechnik”* (Ed. K. Schlacher), Interlaken, pp. 4-22, Sept. 2000.
- [145] M. Kordt and J. Ackermann, “Nonlinear model reduction-method and CAE-tool development”, *Mathematics and Computers in Simulation*, vol.53, pp.309-321, 2000.
- [146] M. Kordt and J. Ackermann, “Robust synergetic design of structural dynamic engine out controllers in parameter space”, *AIAA Journal of Guidance, Control and Dynamics*, vol. 24, pp.305-314, 2001.
- [147] Yingmin Jia and J. Ackermann, “Condition and algorithm for simultaneous stabilization of linear plants”, *Automatica*, vol.37, pp. 1425-1434, 2001.
- [148] J. Ackermann, “Robust control: Schur-stability of polytopes of polynomials”, *Encyclopedia of Optimization* (Eds.: C.A. Floudas, P.M. Pardalos), Kluwer, 2001.
- [149] J. Ackermann and D. Kaesbauer, “Design of robust PID controllers”, *European Control Conference*, Porto, Sept. 2001.
- [150] L. Güvenc and J. Ackermann, “Links between the parameter space and frequency domain methods of robust control”, submitted to *International Journal of Robust and Nonlinear Control*, vol. 11, pp. 1435-1453, 2001.

- [151] N. Bajcinca, R. Koeppe and J. Ackermann, “Design of robust stable master-slave systems with uncertain dynamics and time-delay”, IFAC World Congress, Barcelona 2002.
- [152] J. Ackermann, “Modeling and Control of car yaw and lateral dynamics with uncertain nonlinear tire characteristics, Proceedings 6th Biennial Conference on Engineering Systems Design and Analysis, Istanbul, July 2002.
- [153] J. Ackermann, D. Kaesbauer and N. Bajcinca, “Discrete-time robust PID and three-term control”, IFAC World Congress, Barcelona 2002.
- [154] J. Ackermann and M. Kordt, “Aircraft load alleviation by robust yaw-lateral decoupling”, *Automatica* 39, pp. 1885-1891, 2003.
- [155] J. Ackermann, “Pole placement control”, *Encyclopedia of Life Support Systems*, UNESCO, to appear.
- [156] J. Ackermann and D. Kaesbauer, “Stable polyhedra in parameter space”, *Automatica* 39, pp. 937-943, 2003.
- [157] M. Muhler and J. Ackermann, “Mapping Integral Quadratic Constraints into Parameter Space”, *American Control Conference* 2004.
- [158] J. Ackermann, “My Experiences in the Control Field (Historical Perspectives)”, *IEEE Control Systems Magazine*, pp. 115-120, Dec 2008.
- [159] J. Ackermann and R. Weller, “Automated design for robust PID controllers”, Paper 19 in *Preprints 6th IFAC Symposium on Robust Control Design*, Haifa, June 16-18, 2009.

E Seminars

July 67 TU Berlin
Oct 68 IFAC Sympos. Düsseldorf
March 69 Oberwolfach
Oct 69 Philips, Hamburg
Jan 70 AEG, Frankfurt
Oct 70 Oberwolfach
May 71 TH Darmstadt
Jan 72 U. Illinois, Urbana-Champaign
 U. Minnesota, Minneapolis
 Case Western U., Cleveland
 Kalman-Conference, Florida
 U. Florida
March 72 Oberwolfach
May 72 Cybernetics Meeting, Vienna
June 72 TH Graz

23.02.73	VDI/VDE Frankfurt
10.04.73	TU Belgrade
14.04.73	U. Bremen
29.05.73	Ruhr - U. Bochum
20.06.73	IFAC-Symp. Ischia
25.06.73	U. Sapienzia Rome
30.01.74	TU München
18. - 22.01.74	Cordoba, Argentina
16.05.74	Technion, Haifa
26.06.74	TU München
22.07.74	MBB Ottobrunn
05.09.74	Akademie - Inst. Moskow
18.02.75	VDI/VDE Frankfurt
16.06.75	U. Bremen
24.07.75	MBB Ottobrunn
14.08.75	Int. Conf. System Theory, Minnesota
18.08.75	U. Illinois, Urbana-Champaign
20.08.75	Notre Dame U., South Bend
22.08.75	Yale U.
28.08.75	IFAC Congress, Boston
26.09.75	MBB Ottobrunn
19.12.75	RWTH Aachen
14.04.76	Krauss-Maffei, München
13.05.76	U. Bremen
18.05.76	IFAC-Sympos. Tegernsee
16.06.76	IFAC-Sympos. Udine
11.10.76	TU Berlin
12.10.76	RWTH Aachen
05.11.76	MBB Ottobrunn
14.02.77	VDI/VDE Frankfurt
11.03.77	TU Wien
22.06.77	JACC, San Francisco
05.07.77	IFAC-Sympos. Fredericton
08.03.78	Oberwolfach
14.06.78	IFAC Congress, Helsinki
04.10.78	Allerton Conf., Illinois
13.12.78	Washington U., St. Louis
14.12.78	Mc Donnell - Douglas, St. Louis

11.01.79	CDC San Diego
10.04.79	Case Western, Cleveland
12.04.79	U. Toronto
17.04.79	U. Washington, Seattle
18.04.79	Boeing, Seattle
26.04.79	MIT, Boston
30.04.79	Yale U.
02.05.79	Brown U.
03.05.79	Drexel U.
04.05.79	NASA Langley
09.05.79	U. Illinois, Urbana-Champaign
18.05.79	UMASS, Amherst
19.06.79	JACC, Denver
20.07.79	U. Ann Arbor
22.11.79	DLR Braunschweig
Jan 80	Caracas, Venezuela
12.03.80	Oberwolfach
05. - 07.05.80	U. Bremen
08.05.80	TU Hamburg-Harburg
22.05.80	U. Paderborn
23.05.80	U. Dortmund
30.09.80	Interlaken
13.10.80	AGARD Athen
16.10.80	AGARD Rom
21.10.80	AGARD London
22.10.80	U. Cambridge
05.01.81	TU Hamburg-Harburg
22.05.81	20 J. CCG, Heidelberg
02.06.81	U/GH Duisburg
24.07.81	Sympos. Lin. Systems, Bielefeld
26.08.81	IFAC Congress Kyoto
01.09.81	U. Tokio
29.09.81	Interlaken
26.10. - 12.11.81	Beijing, Xian
23.07.81	U. Siegen
17.12.81	ETH Zürich
21.01.82	MBB, Ottobrunn
05.02.82	U. Würzburg
04.03.82	Oberwolfach
24.05.82	U. Saarbrücken
12.07.82	Daimler-Benz
05.10.82	Interlaken

11.10.82	U. Paderborn
30.11.82	Notre Dame U., South Bend
01.12.82	Purdue U., Lafayette
02.12.82	Washington U., St. Louis
03.12.82	U. Illinois, Urbana-Champaign
09.12.82	CDC Orlando
01.06.83	ETH Zürich
26.09.83	GMR, Langen
04.10.83	Interlaken
20.02.84	TH Ilmenau
22.02.84	TU Dresden
07.03.84	Oberwolfach
29.06.84	Pre-IFAC, Cavtat
05.07.84	IFAC Congress, Budapest
02.10.84	Interlaken
12. - 14.11.84	Bosch-Kolleg, Schwieberdingen
04. - 05.03.85	ANU Canberra
11. - 13.03.85	ANU Canberra
20.03.85	ANU Canberra
15.04.85	U. Newcastle
12.06.85	MTNS Stockholm
17.06.85	IFAC Workshop, Boston
20.06.85	ACC Boston
21.06.85	Rensselaer U., Troy
24.09.85	MAN, München
01.10.85	Interlaken
23.10.85	TH Ilmenau
05.03.86	Oberwolfach
07.04.86	U. Manchester
08.04.86	U. Cambridge
30.09.86	GMR Langen
11.12.86	CDC Athen
22.01.87	Benelux Conf.
01.04.87	Technion, Haifa
20.07.87	IFAC Working Group, Tegernsee
28.07.87	IFAC Congress, München
06.10.87	Interlaken
23.03.88	Oberwolfach
13.04.88	ERNO Bremen
01.06.88	IFAC-Sympos. Zürich

11.06.88	Robust Control Workshop, Turin
29.09.88	Interlaken
28.10.88	TH Ilmenau
31.10.88	Akademie, Berlin
02.11.88	U. Magdeburg
01.12.88	UC Irvine
03.12.88	UC Santa Barbara
05.12.88	CDC, Austin
05.04.89	ICCON, Jerusalem
20. - 22.04.89	MBB, Ottobrunn
27. - 29.04.89	MBB, Hamburg
13.06.89	Robustness Workshop, Bremen
20.06.89	MTNS Amsterdam
01.08.89	U. Wisconsin, Madison
11.10.89	UC Irvine
30.10.89	UC Irvine
03.11.89	Texas A&M, College Station
08.11.89	USC, Los Angeles
29.11.89	UC Irvine
14.12.89	CDC, Tampa
07.02.90	UCLA
12.03.90	UC Irvine
16.03.90	Caltech, Los Angeles
02. - 05.04.90	3 McKay Lectures UC Berkeley
09.04.90	UC Berkeley
17.04.90	U. Maryland
19.04.90	Virginia Polytechnic
20.04.90	UMASS, Amherst
26.04.90	U. Santa Clara
03.05.90	Stanford U.
04.05.90	Integrated Systems, Palo Alto
24.05.90	ACC, San Diego
15.08.90	IFAC Congress, Tallin
02.10.90	Interlaken
06.12.90	CDC, Honolulu
10.01.91	Bosch, Stuttgart
14.01.91	BMW München
14.03.91	Robustness Workshop, San Antonio
13.05.91	U. St. Petersburg
16.05.91	U. Kiev
21.05.91	Academy Inst., Moscow

27.05.91	BUAA, Beijing
28.05.91	Beijing U.
16.06.91	U. Lyngby
02. + 04.07.91	ECC Grenoble
05.09.91	IFAC Sympos. Design, Zürich
10.09.91	IFAC Robust Control Workshop, Kappel/Albis
01.10.91	Airbus, Hamburg
03.12.91	HdT, Essen
18.03.92	Oberwolfach
14.04.92	Robustness Workshop, Ascona
01.06.92	IIASA Laxenburg/Vienna
25.06.92	ACC, Chicago
27.06.92	Jury-Sympos., Chicago
12.08.92	BMW, München
17.12.92	CDC, Tuscon
19.12.92	UC Santa Barbara
13. + 15.03.93	KTH Stockholm
17.05.93	U. Turin
18.05.93	FIAT
07.06.93	U. Rostock
30.06.93	ECC Groningen
15.07.93	IFAC Workshop, Cairns
19.07.93	IFAC Congress, Sydney
28.07.93	BMW, München
04.08.93	MTNS, Regensburg
20.10.93	Robustness Workshop, Jerusalem
09.02.94	EURACO, Twente
23.03.94	Oberwolfach
27.04.94	U/GH, Kassel
17.05.94	MAN, München
15.06.94	Daimler-Benz
30.06.94	ACC, Baltimore
30.08.94	Young Researcher Week, Dublin
26.10.94	AVEC, Tsukuba
31.10.94	Toyota
02.11.94	U. Tokio
15.03.95	Vehicle Control Workshop, Ascona
12.07.95	IEEE Medit. Conf., Cyprus
05.09.95	ECC, Rome
07.09.95	COSY Workshop, Rome
12.09.95	EURACO, Florence
09.10.95	IFAC Motion Control, München

09. + 10.04.96 Wright-Patterson
 11.04.96 Ohio State U.
 15. + 16.04.96 UC Santa Barbara
 17.04.96 UC San Diego
 15.05.96 Bosch, Stuttgart
 23.05.96 TU Hamburg-Harburg
 11.06.96 IEEE Medit. Conf., Crete
 27.06.96 AVEC, Aachen
 02.07.96 IFAC Congress, San Francisco
 12.07.96 PATH, Richmond
 04.09.96 IEE Conf., Exeter
 17.10.96 EURACO, Herrsching
 27.11.96 Oberwolfach
 13.12.96 CDC, Kobe

 18.01.97 COSY, Zürich
 18.02.97 U. Bundeswehr, Neubiberg
 21.03.97 KTH, Stockholm
 25.03.97 GAMM, Regensburg
 05. - 07.05.97 Washington U., St. Louis
 26.06.97 ROCOND, Budapest
 30.06.97 COSY, Brussels
 02.07.97 ECC, Brussels
 09.07.97 Airbus, Hamburg
 22.07.97 TRW, Düsseldorf
 12. + 13.08.97 Airbus, Hamburg
 26.08.97 Porsche, Weissach
 07.10.97 ZF, Friedrichshafen
 17.10.97 TU Dresden
 15.12.97 Audi, Ingoldstadt
 14.01.98 BMW, München
 06.03.98 VW, Wolfsburg
 17.06.98 Kröll 60 Jahre, Köln
 25.06.98 ACC, Philadelphia
 29.06.98 Davison Coll., Toronto
 01. - 03.07.98 Vehicle Control, Amiens
 01.08.98 Robust Control Workshop, Siena
 09.10.98 COSY, Ohrid

 14.01.99 DASA, Hamburg
 24.03.99 Oberwolfach
 26.04.99 ZF, Schwäbisch-Gmünd
 20.05.99 UC Davis
 28.05.99 UC Santa Barbara
 03.06.99 ACC, San Diego

06.06.99 Automotive Workshop, Santa Barbara
01.09.99 ECC, Karlsruhe
07.09.99 MAN, München

14.01.00 Philip Morris Stiftung, München
17.02.00 Regelungst. Koll. Boppard
29.02.00 PSA, Paris
12.05.00 TU München
22.06.00 ROCOND, Prag

29.01.01 TU Hannover
01.03.01 Porsche, Weissach
26.06.01 ACC, Arlington
05.09.01 ECC, Porto

28.02.02 Oberwolfach
24.05.02 Lausanne
10.07.02 ESDA, Istanbul
11.07.02 ASME, Istanbul
10.09.02 Grenoble Summer School

18.04.03 Peking University
18.04.03 Beijing University of Aeronautics and Astronautics
22.04.03 Central South University, Changsha, Hunan
29.09.03 University of Pretoria

03.06.04 Rom

03.05.06 RWTH Aachen

13.06.09 St. Louis
06.07.09 TU Berlin