LIST OF PAPERS OF PROF. GIAN CARLO MONTANARI

Published in major National and International Journals and Conferences

- 1 - "Resonance overvoltages at the connection of capacitors for power factor compensation" (in Italian, with M.Loggini), L'ENERGIA ELETTRICA, pp. 66-71, February 1981.
- 2 - "Significance and importance of the electric strength measurement after aging under combined stresses" (in Italian), L'ENERGIA ELETTRICA, pp. 232-236, June 1981.
- 3 - "A method for the study on harmonic current compensation in low voltage plants" (in Italian, with M.Loggini, R.Miglio), L'ENERGIA ELETTRICA, pp. 243-254, June 1982.
- 4 - "The electric strength measurement for aging evaluation in multiple stress tests" (with G.Pattini, L.Simoni), IEEE INTERNATIONAL SYMPOSIUM on ELECTRICAL INSULATION, pp. 9-12, Philadelphia, June 1982.
- 5 - "Parameters of a failure probability distribution for a dielectric material subjected to electrical and thermal stresses" (in Italian, with M.Cacciari), L'ENERGIA ELETTRICA, pp. 206-210, May 1983.
- 6 - "Comparison between two probability functions in the statistical analysis of aging test data of electrical insulating materials" (with M.Cacciari), MATERIALS SCIENCE, Vol.IX, n.3, Wroclaw, Poland, 1983.
- 7 - "Application of a new method to the analysis of combined-stress tests results" (with G.Pattini), FOURTH INTERNATIONAL SYMPOSIUM on HIGH VOLTAGE ENGINEERING, paper 23.02, Athen, September 1983.
- 8 - "Contribution to the analysis of thermal life tests" (in Italian, with G.Pattini), L'ENERGIA ELETTRICA, pp. 353-360, September 1983.
- 10 - "Voltage endurance of XLPE insulated cable models" (with G.Pattini, L.Simoni), IEEE INTERNATIONAL SYMPOSIUM on ELECTRICAL INSULATION, pp. 55-58, Montreal, Canada, June 1984.
- 16 - "Electrical and microstructural investigations on aging of an insulating composite material subjected to combined stresses" (with S.Masoni, A.Motori, G.Pattini, F.Sandrolini, L.Simoni), INTERNATIONAL CONFERENCE on PROPERTIES and APPLICATIONS of DIELECTRIC MATERIALS, pp. 303-306, Xian, China, June 1985.
- 18 - "Statistical procedures for the determination of a weibull function pertinent to progressively-censored life tests" (in Italian, with M.Cacciari), L'ENERGIA ELETTRICA, pp. 308-316, July 1985.
- 21 - "Study of contribution of harmonic filters to the reduction of voltage distortion" (in Italian, with M.Loggini, R.Belli), L'ENERGIA ELETTRICA, pp. 366-373, October 1985.
- 23 - "Insulating material endurance to electrical and thermal stresses, separately or simultaneously applied" (in Italian, with L.Simoni, G.Pattini, M.Cacciari), L'ENERGIA ELETTRICA, pp 66-80, February 1986.
- 28 - "A solution to the problem of harmonic distortion in low-voltage electrical plants" (in Italian, with M. Loggini, R.Miglio, S.Bononi), L'ENERGIA ELETTRICA, pp. 11-17, January 1987.
- 31 - "Residual electric strength measurements as a method to evaluate materials endurance" (with L.Simoni, G.Pattini), 5th ISH, n.22.09, Braunschweig, Germany, 24-28 August 1987.
- 32 - "Voltage and current distortion compensation in electrical plants supplying static converters" (in Italian, with M.Loggini), L'ENERGIA ELETTRICA, n.12, pp. 509-520, December 1987, AEI prize "Maria Faletti-Nosari.


- 38 - "Chemical, physical and microstructural properties of aged XLPE cable models" (with A. Motori, F. Sandrolini), INTERNATIONAL CONFERENCE on PROPERTIES and APPLICATIONS of DIELECTRIC MATERIALS, pp. 764-768, Beijing, China, September 1988.


- 48 - "Degradation and electrical behavior of aged XLPE cable models" (with A. Motori, F. Sandrolini), 3rd INTERNATIONAL CONFERENCE on CONDUCTION and BREAKDOWN in SOLID DIELECTRICS, pp. 353-357, Trondheim, Norway, 3-6 June 1989.

- 49 - "The selection of failure criteria for thermal endurance characterization of XLPE cable models" (with A. Motori), SIXTH INTERNATIONAL SYMPOSIUM on HIGH VOLTAGE ENGINEERING, n. 27.27, New Orleans, USA, August 1989.


- 54 - "Design and error estimate in electrical life tests performed on insulating materials and systems", (in Italian, with M. Cacciari), L'ENERGIA ELETTRICA, n.12, pp. 529-539, December 1989.
- 57 - "Time behavior and breakdown of XLPE cable models subjected to multiple stresses" (with A. Motori), IEEE INTERNATIONAL SYMPOSIUM ON ELECTRICAL INSULATION, pp. 257-260, Toronto, Canada, June 1990.
- 60 - "Compensation effect in the study of thermal aging of insulating materials" (in Italian), L'ENERGIA ELETTRICA, n. 11, pp. 485-497, November 1990.
- 61 - "Evaluacion de filtros de armonicas de corriente" (with M. Loggini), CONCAPAN, Panama, pp. 1-12, November 1990.
- 70 - "Life models for PET films subjected to multiple thermal-electrical stresses" (with S.M. Gubanski), 7th INTERNATIONAL SYMPOSIUM ON HIGH VOLTAGE ENGINEERING, Dresda, Germania, pp. 156-158, August 1991.
- 75 - "Power factor improvement in single phase circuits with distorted voltage and current" (with M. Cacciari, R. Sasdelli), INTERNATIONAL CONFERENCE "SIGNAL, DATA, SYSTEMS", pp. 211-221, Djerba, Tunisia, November 1991.
- 78 - "Estimating the cumulative probability of failure data points to be plotted on Weibull and other probability papers" (with M. Cacciari), Discussion with J.C. Fothergill, IEEE TRANSACTIONS on ELECTRICAL INSULATION, Vol. EI-26, n.6, pp. 1224-1229, December 1991.
- 81 - "Considerations about power definitions in non-sinusoidal conditions" (with A. Menchetti, R. Sasdelli), IMEKO 5th INTERNATIONAL SYMPOSIUM on ELECTRICAL MEASURING INSTRUMENTS for LOW and MEDIUM FREQUENCIES, 11-17, Vienna, Austria, April 1992.
- 85 - "The Kalman filter as a way to estimate the life-model parameters of insulating materials and systems" (with G. Tambini, M. Cacciari), 4th INTERNATIONAL CONFERENCE on CONDUCTION and BREAKDOWN in SOLID DIELECTRICS, pp. 523-527, Sestri Levante, Italy, June 1992.
- 87 - "DC electrical conductivity of XLPE cable models aged under thermo-electrical stresses" (with A. Motori, F. Sandrolini), 4th INTERNATIONAL CONFERENCE on CONDUCTION and BREAKDOWN in SOLID DIELECTRICS, pp. 285-290, Sestri Levante, Italy, June 1992.
- 88 - "Evaluation of insulating materials on the basis of electrical treeing and breakdown tests" (with R. Bozzo, F. Guastavino), 4th INTERNATIONAL CONFERENCE on CONDUCTION and BREAKDOWN in SOLID DIELECTRICS, pp. 539-544, Sestri Levante, Italy, June 1992.


- 93 - "On the significance of an accurate evaluation of harmonic amplitudes and phases in electrical plant design" (with M. Loggini, A. Cavallini), 5th INTERNATIONAL CONFERENCE on HARMONICS in POWER SYSTEMS, 228-233, Atlanta, USA, 23-25 September 1992.

- 94 - "General criteria for the stochastic sum of measured harmonics at plant busses" (with M. Cacciari, A. Cavallini, M. Loggini), IEEE INDUSTRY APPLICATION SOCIETY ANNUAL MEETING, 1351-1359, Houston, USA, 4-9 October 1992.


- 104 - "Investigation of relaxation processes in thermally-aged XLPE cables" (with A. Motori, S. Gubanski), IEEE CONFERENCE ON ELECTRICAL INSULATION AND DIELECTRIC PHENOMENA, 751-756, Pocono, USA, 17-20 October 1993.
- 113 - "Multistress endurance characterization of EPR cable models" (with G. Mazzanti, L. Simoni), IEEE INTERNATIONAL SYMPOSIUM ON ELECTRICAL INSULATION, 264-268, Pittsburgh, USA, 6-8 June 1994.
- 115 - "TSDC investigation of thermally and electro-thermally aged cable models" (with S. Gubanski, A. Motori), IEEE INTERNATIONAL SYMPOSIUM ON ELECTRICAL INSULATION, 54-57, Pittsburgh, USA, 6-8 June 1994.
- 120 - "Compensable power for electrical systems in non sinusoidal conditions" (with R. Sasdelli), IEEE TRANSACTIONS on INSTRUMENTATION and MEASUREMENTS, Vol. 43, n. 4, 592-598, August 1994.


- 146 - "Sobre el problema de la reduccion del flicker y de las corrientes armonica en los hornos de potencia elevada" (with A. Cavallini, M. Loggini, R. Miglio), IEEE RVP'95, pp. 1-8, Acapulco, Mexico, 16-21 July 1995.


- 153 - "A simplified solution for bi-dimensional random-walks and its application to power quality related problems" (with A. Cavallini), IEEE INDUSTRY APPLICATION SOCIETY ANNUAL MEETING, 1125-1132, Orlando, USA, 8-12 October 1995.
- 154 - "A parametric approach to the prediction of the time-behavior of harmonic-quantities in electrical networks" (with A. Cavallini), IEEE INDUSTRY APPLICATION SOCIETY ANNUAL MEETING, 2226-2232, Orlando, USA, 8-12 October 1995.
- 158 - "Compensation effect in electrical conductivity of Poly(i-Caprolactam) containing variable amount of lithium chloride" (with A. Motori), IEEE CONFERENCE ON ELECTRICAL INSULATION AND DIELECTRIC PHENOMENA, 560-563, Virginia Beach, USA, 22-25 October 1995.
- 159 - "Modelling of multifactor ageing processes occurring in solid insulation", invited paper, IEE Colloquium on multifactor ageing, 4/1-4/3, Londra, 9 November 1995.
- 168 - "Thermal endurance of electrical insulating materials studied by the use of the Kalman Filter" (with M. Cacciari, C.P. Barry), EUROPEAN TRANSACTIONS on ELECTRICAL POWER ENGINEERING, Vol. 6, n. 2, 103-110, April 1996.
- 170 - "Inference of a continuous auto-regressive model for the forecasting of non-stationary stochastic processes deriving from energy demand in electrical networks" (with A. Cavallini, G. Mazzanti), MELECON '96, 726-729, Bari, Italy, 13-16 May 1996.
- 173 - "Some remarks regarding the test cells used for electric strength measurements" (with G. Mazzanti, F. Peruzzotti, A. Zaopo), IEEE INTERNATIONAL SYMPOSIUM ON ELECTRICAL INSULATION, 474-477, Montreal, Canada, 16-19 June 1996.
- 180 - "Harmonic surveying of medium voltage distribution networks: optimization criteria" (with A. Cavallini), 7th INTERNATIONAL CONFERENCE on HARMONICS and QUALITY of POWER, 740-746, Las Vegas, USA, 16-18 October 1996.
- 181 - "Statistical modeling of harmonic distortion at residential outlets" (with A. Cavallini, R. Miglio), 7th INTERNATIONAL CONFERENCE on HARMONICS and QUALITY of POWER, 528-533, Las Vegas, USA, 16-18 October 1996.
- 184 - "Electric strength measurements for quality control of EPR compound for high voltage cables" (with F. Peruzzotti, A. Zaopo, G. Mazzanti, I. Ghinello), IEEE CONFERENCE on


- 200 - “Improving the efficiency of power factor correction by probabilistic criteria” (with G. Mazzanti, A. Cavallini), POWER QUALITY ’97, Baltimore, USA, 6-12 September 1997.
- 228 - Discussion “A molecular model to evaluate the impact of aging on space charges in polymer dielectrics” by J.P. Crine (with A. Bulinski), IEEE Trans. on Diel. and El. Ins., Vol. 5, n. 3, 461-462, June 1998.


- 233 - “Theoretical considerations on the design of a multistep power factor correction apparatus” (with A. Cavallini, G. Mazzanti), 8th IEEE ICHQP, 783-790, Athen, Greece, 14-16 October 1998.

- 234 - “Analysis and modeling of harmonic pollution due to consumer electronics” (with A. Cavallini, G. Gambelli, A. Invernizzi), 8th IEEE ICHQP, 865-872, Athen, Greece, 14-16 October 1998.

- 235 - “Accelerated capacitor degradation due to nonsinusoidal voltage supply and reliability of insulation systems” (with A. Cavallini, I. Ghinello, G. Mazzanti), 8th IEEE ICHQP, 720-726, Athen, Greece, 14-16 October 1998.


- 237 - “A model for fluorescent lamp flicker in the presence of voltage distortion” (with L. Peretto), 8th IEEE ICHQP, 1206-1210, Athen, Greece, 14-16 October 1998.


- 244 - “Recent developments in insulation life modeling” (with G. Mazzanti), Special Issue REE “Special cables n. 3”, pp. 66-72, May 1999.

- 251 - “Searching for the factors which affect self-healing capacitor degradation under nonsinusoidal voltage” (with D. Fabiani), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 6, n. 3, pp. 319-325, April 1999.
- 254 - “Diagnosis of stator windings of ac machines using partial discharge technique” (with A. Contin, M. Cacciari), IEEE SDEMPED, pp. 51-58, Gijon, Spain, September 1999.
- 260 - “The effect of nonsinusoidal voltage on intrinsic aging of cable and capacitor insulating materials” (with D. Fabiani), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 6, n. 6, pp. 798-802, December 1999.

- 266 - “Voltage endurance of electrical components supplied by distorted voltage waveforms” (with A. Cavallini, D. Fabiani, G. Mazzanti, A. Contin), IEEE ISEI, pp. 73-76, Anaheim, USA, April 2000.


- 270 - “Time behavior of physical and stochastic parameters from partial discharges incepted in spherical voids” (with P. Morshuis, A. Cavallini, F. Puletti, A. Contin), IEEE ICPADM, pp. 304-309, Xi’an, China, June 2000.

- 271 - “Mobility evaluation from space charge measurements performed by the pulsed electroacoustic technique” (with G. Mazzanti, F. Palmieri, B. Bertuzzi), IEEE ICPADM, pp. 38-41, Xi’an, China, June 2000.


- 317 - "Diagnostic markers for ac power cable insulation aging based on space charge measurements" (with D. Fabiani, M. Melloni, F. Palmieri), IEEE ISEI, pp. 464-467, Boston, USA, April 2002.

- 318 - "Indexes for the recognition of insulation system defects derived from partial discharge measurements" (with A. Cavallini, M. Conti, A. Contin), IEEE ISEI, pp. 511-515, Boston, USA, April 2002.


- 323 - "Life model based on space-charge quantities for HVDC polymeric cables subjected to voltage-polarity inversions" (with A. Cavallini, D. Fabiani, G. Mazzanti), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 9, n. 4, pp. 514-523, August 2002.

- 324 - "Simulation of complex reliability systems in the presence of aging and maintenance crew limitation" (with A. Cavallini, D. Fabiani), PMAPS, pp.637-642, Napoli, Italy, September 2002.


- 328 - "Inferring partial discharge identification through fuzzy tools" (with A. Cavallini, M. Conti, A. Contin), IEEE CEIDP, pp. 698-702, Cancun, Mexico, October 2002.

- 329 - "Searching for PD-based indexes able to infer the location of internal defects in insulation" (with A. Cavallini, M. Conti, A. Contin, R. Candela, P. Romano, R. Schifani), IEEE CEIDP, pp. 703-706, Cancun, Mexico, October 2002.


- 338 - "Quantities extracted from space-charge measurements as markers for insulation ageing" (with G. Mazzanti, F. Palmieri), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 10, n. 2, pp. 198-203, April 2003.


- 358 - "Dielectric material properties investigated through space charge measurements", IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 10, n. 5, pp., October 2003.


- 360 - "PD inference for the early detection of electrical tree in insulation systems" (with A. Cavallini, M. Conti, C. Arlotti, A. Contin), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 10, n. 6, pp., December 2003.

- 361 - "Investigation of the relation between space charge accumulation and partial discharge activity in enamelled wires under PWM-like voltage waveforms" (with D. Fabiani, A. Cavallini, G. Mazzanti), IEEE Trans. on Dielectrics and Electrical Insulation, Vol. 10, n. 6, pp., December 2003.

Minor journals and conferences, IEC documents

- B1 - "Filters for the reduction of harmonics generated by low-voltage static converters" (in Italian, with M. Loggini, R. Miglio), Engineering Faculty report, April 1982.


- B8 - "Converter commutation as the cause of harmonic disturbances in power networks" (in Italian, with M. Loggini, R. Miglio), Engineering Faculty report, January 1988.

- B9 - "Harmonic disturbances in an electrical plant of an electromechanical factory" (in Italian, with R. Miglio, M. Loggini), LXXXIX Annual Meeting AEI, 1b2-2, 1-6, Capri, Italy, October 1988.


- B11 - "Life estimate for electrical insulating materials subjected to electrical stress" (in Italian, with M. Cacciari), Engineering Faculty report, December 1988.

- B12 - "Study of aging of ferromagnetic materials subjected to thermal and mechanical stresses" (in Italian), Engineering Faculty report, December 1988.


- B17 - "Non-characteristic and non-multiple harmonics injected by the control system of traction motors" (in Italian, with C.F. Chizzolini, M. Loggini), AEI Meeting, pp. 170-177, Florence, Italy, November 1989.


- B21 - "Progress in developing the concept of Aging Compensation Effect by introducing a further correlation established between the measured "log life" values" (with P.K. David), IEC 15B WG1 Document, February 1991.
- B32 - "Diagnostic properties for investigation of degradation of energy cables with polymeric insulation" (in Italian, with G. Mazzanti, A. Motori), Riunione Annuale AEI, 37-43, Bologna, Italy, 2-5 October 1994.
- B33 - "Considerations on the probabilistic investigation of the harmonic penetration in electrical systems" (in Italian, with A. Cavallini), Riunione Annuale AEI, 39-44, Rome, Italy, 24-27 September 1995.
- B37 - "Comparison between characteristics of monofilamentary and multifilamentary specimens of BSCCO-2223" (in Italian, with A. Motori, I. Ghinello), AIMAT 96 Conference, 116-124, Trento, Italy, 19-21 September 1996.


- B41 - “Methods for the evaluation of the reliability and time behavior of high-voltage polymeric insulation” (with A. Motori), FAST conference, Milan, Italy, 10-14 November 1997.


- B44 - "A summary of research activities on diagnostic at LIMAT" (with Andrea Cavallini, Davide Fabiani, Marco Conti), IEEE SDEMPED, pp. 107-109, Grado, Italia, September 2001.


- B47 - "Cable diagnosis using variable frequency and partial discharge diagnosis with defect location and characterization" (with J. Rickmann, D. Kremer), Sistema de Distribucion Subteranea, pp. 1-7, Guadalajara, Jalisco, September 2002.


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