

a) **Publications from Ph.D. Thesis:**

- H. Saleh and A. R. Soltani, On the regularity of homogeneous random fields, Prediction theory and Harmonic Analysis, 309-328, North Holland, 1983.

b) **Research Papers:**

- 1- Soltani, A. R. Extrapolation and moving average representation for stationary random fields and Beurling's Theorem. The Annals of probability, vol. 12, 120-132, 1984.
- 2- Cambanis, S. and A. R. Soltani, Prediction for stable processes: spectral and moving average representations. Z. Wahr. verw. Gebiete, vol. 66, 593-612, 1984.
- 3- Soltani, A. R. and A. Khodadadi. Run probability and the motion of a particle on a given path. J. Applied Probability, vol. 23, 28-41, 1986.
- 4- Soltani, A. R., and H. Pezeshekh, A shock model based on the atoms of a Poisson random measure. Bull. Iranian Math. Soc., vol. 17, 55-66, 1990.
- 5- Soltani, A. R., Local nondeterminism for moving average stable processes. Bull. Iranian Math. Soc., vol. 18, 7-16, 1992.
- 6- Soltani, A. R., On local fluctuations of stable moving average processes. Stochastic Processes and their Applications, Vol. 42, 111-118, 1992.
- 7- Samani, N., Raeissi, E., and A. R. Soltani, Stochastic synthesis of droughts for reservoir storage design. J. of Engineering IRI, vol. 6, No. 1, 59-63, 1993.
- 8- Soltani, A. R., On the variations of functions of several variables: local time Gaussian and Stable fields. Bull. Iranian Math. Soc., vol.19, 41-61, 1994.
- 9- Soltani, A. R., On spectral representation of multivariate stable processes. Theory of Probability and its applications, Vol. 39, No. 3, 605-617, 1994.
- 10- Samani, N., Raeissi, E., and A. R. Soltani, Modeling the stochastic behavior of the Fars rivers. J. of Science IRI., vol. 5, 49-58, 1994.
- 11- Soltani, A. R., and R. Moeanaddin, On dispersion of stable random vectors and its application in the prediction of multivariate stable processes. J. Applied Probability, Vol. 31, 691-699, 1994.
12. Soltani, A. R., Reward processes with nonlinear reward functions. J. Applied Probability, vol. 33, 1011-1017, 1996.

- 13- Nikfar, M. and A. R. Soltani., A characterization and moving average representation for stable harmonizable processes. *Journal of Applied Mathematics and Stochastic Analysis*, vol. 9 , 263-270, 1996.
- 14- Dozzi, M. and A. R. Soltani., Local time for stable moving average processes: Holder conditions. *Stochastic processes and their applications*, vol. 68, no.2, 195-207, 1997.
- 15- Soltani, A. R., Certain families of distributions, indexed by $1 \leq a \leq 2$. *Applied Statistical Science*, II, 165-169, 1997.
- 16- Soltani, A. R., and Z. Shishebor, A spectral representation for weakly periodic sequences of bounded linear transformations. *Acta Mathematica Hungaria*, vol. 80, no. 3, 265-270, 1998.
- 17- Soltani, A. R., and K. Khorshidian, Reward processes for semi-Markov processes: Asymptotic behavior. *J. Applied Probability*, vol. 35, 833-842, 1998.
- 18- Parham, G. A., and A. R. Soltani, First passage time for reward processes with nonlinear reward functions: Asymptotic behavior. *Pakistan J. Statistics*, vol 14, 65-80, 1998.
- 19- Nikfar, M., and A. R. Soltani, On regularity of certain stable processes. *Bull. Iranian Math. Soc.*, vol. 23, 13-22, 1998.
- 20- Soltani, A. R., and Z. Shishebor, Weakly periodic sequences of bounded linear transformations : A spectral characterization. *Georgian Mathematics Journal*, vol. 6, 91-98, 1999.
- 21- Mohammadpour, A., and A. R. Soltani, Exchangeable stable random vectors and their simulations. *Computational Statistics*, vol. 15, 205-217, 2000.
- 22- Nematollahi, A. R., and A. R. Soltani, Discrete time periodically correlated Markov processes. *Probability and Mathematical Statistics*, vol. 20, no.1, 1-14, 2000.
- 23- Soltani, A. R., A characterization theorem for stable random measures. *J. of Stochastic Analysis and Applications*, vol. 18, no. 2, 299-308, 2000.

- 24- Rezakhah, S. and A. R. Soltani, Expected number of real zeros of Levy and harmonizable stable random polynomials. *Georgian Mathematical Journal*, vol. 7, no. 2, 379-386, 2000.
- 25- Soltani, A. R., and F. Yaghmaee, An algorithm to interpolate noise in second order stationary sequences. *J. Appl. Statist. Sci.*, vol. 10, 223-235, 2001.
- 26- Soltani, A. R., and B. Tarami, Hilbert spaces formed by strongly harmonizable stable processes. *Georgian Math. J.*, vol. 8, No. 1, 181-188, 2001.
- 27- Rezakhah, S., and A. R. Soltani, A structural fatigue design by using random polynomials with wave coefficients. *Nonlinear Analysis*, vol. 47, 3145-3155, 2001.
- 28- Mirghadri, R., and A. R. Soltani, The k th Visit in Semi-Markov Processes. *Bull. Iranian Math. Soc.* vol. 27, no.2, 65-79, 2001.
- 29- Soltani, A. R., and M. Dozzi, Berman's Integral for stable noise. *Journal of Mathematical Sciences*. Vol. 106, no. 1, 2747-2751, 2001.
- 30- Khorshidian, K.; Soltani, A. R. Asymptotic behavior of multivariate reward processes with nonlinear reward functions. *Bull. Iranian Math Soc.* 28 (2002), no. 2, 1—17.
- 31- Khorshidian, K. and Soltani, A. R. Covariance matrix of multivariate reward processes with nonlinear reward functions. *J. Sci. Islam. Repub. Iran* 14 (2003), no. 2, 173—183.
32. Rezakhah, S., and Soltani, A. R. On the expected number of real zeros of certain Gaussian random polynomials. *J. Stochastic Analysis and Applications*, Vol. 21, no. 1, 223-234, 2003.
- 33- Soltani, A. R.; Khalafi, M. Estimating stationary components of spectrums of discrete time evolutionary processes. *Int. Math. J.* 3 (2003), no. 9, 967--987.
- 34- Soltani, A. R.; Mahmoodi, S. Characterization of multidimensional stable random measures by means of vector measures. *Stochastic Anal. Appl.* 22 (2004), no. 2, 449—457.
- 35- Soltani, A. R. and Al-Ibrahim, A. H., Success run and its branches: Distribution of renewal epochs, *J. Probab. Stat. Sci.* 2, 1-6 (2004).
- 36- Mohammadpour, A. and A. Reza Soltani, On Simulating exchangeable sub-Gaussian random vectors, *Statist. Probab. Lett.* 69, no. 1, 29-36 (2004).
- 37- Parham, G. A. and A. R. Soltani, Exact formulas for the moments of the first passage time of reward processes, *REVSTAT*, 3, no. 1, 45-60 (2005).
- 38- Soltani, A. R. and Parvardeh, A. Decomposition of discrete time periodically correlated and multivariate stationary symmetric stable processes, *Stochastic Processes and Their Appl.* 115, 1838-1859, (2005).

- 39- Soltani, A. R. and Parvardeh, A. (2005). Simple random measures and simple processes. *Teoriya Veroyatnostej i ee Primenenia* , 50, No. 3, 533-548. Translation: *Theory Probab. Appl.* 50, No. 3, 448-462 (2006).
- 40- Nematollahi, A. R. and A. R. Soltani, An inequality involving correlations, *Statist Probab. Lett.* 76, 369-372 (2006).
- 41- Al-Jarallah R. A., Soltani A. R. and Al-kandari N. A., On continuity of the Pearson statistic and sample quantiles. *Ann. Inst. Statist. Math.* 58, 527-535 (2006).
- 42- Z. Shishebor, A. R. Nematollahi and A. R. Soltani, On the covariance functions and spectral density matrices of periodically correlated AR processes, *J. Appl. Math. Stochastic Anal.* Article ID 94746, 1-17, (2006).
- 43- Soltani, A. R. and A.R. Nematollahi, and M. Sadeghifar, Autoregressive Gaussian random vectors of first order. *Bull. Iranian Math. Soc.* 32,1, 1-19 (2006).
- 44- A. R. Soltani and M. Mohammadpour, Moving average representations for multivariate stationary processes, *J. Time Ser. Anal.* 27, 6, 831-842 (2006).
- 45- Soltani, A.R., and Z. Shishebor, On infinite dimensional discrete time periodically correlated processes, *Rocky Mountain Math. J.* 37, 3, 1043-1058 (2007)
- 46- Soltani, A. R. and M. Azimmohseni, Simulation of real-valued discrete time periodically correlated Gaussian processes with prescribed spectral density matrices. *J. Time Ser. Anal.* 28, 2, 225-240 (2007).
- 47- A. R. Soltani and M. Azimmohseni, Periodograms asymptotic distributions in periodically correlated processes and multivariate stationary processes: An alternative approach. *J. Statistical Planning and Inference*, 137, 4, 1236-1242 (2007)
- 48- A. R. Soltani, S. A. Al-Awadhi and W.M. Al-Shemeri, On thresholds of moving averages with given on target significant levels. *Comm. Statist. Theory and Methods*, 36, 14, 2595-2606, 2007.
- 49- Makagon, A., Miamee, A. G. Salehi, H. and A.R. Soltani, On spectral domain of periodically correlated processes. *Theor. Probab. Their Appl.* 52, 2, 1-12, 2007.
- 50- Rezakhah, S. and A. R. Soltani, Germ Fields for Harmonizable Stable Processes with Rational Spectral Densities. *Rocky Mountain Journal of Mathematics.* 39, 270-278, 2009.
- 51- A. R. Soltani, and M. Mohammadpour, Time Domain Interpolation Algorithm For Innovations of Discrete Time Multivariate Stationary Processes. *J. Stochastic Analysis and Applications*, 27, 317-330, 2009.
- 52- F. Al-Awahi, and A. R. Soltani, Thresholds of Moving Averages of Stationary Processes for given on target significance levels. *Computational Statistics* 24, 431-440, 2009.

- 53- M. Mohammadpour, and A. R. Soltani, Forward Moving Average Representation in Multivariate MA(1) Processes, *Communications in Statistics*, 39, 4, 729-737, 2010.
- 54- A. R. Soltani and H. Homeei. A Characterization and Generalization for Two Sided Power Distributions and Extended Method of Moments. *Statistics*, 43, 6, 611-620, 2009.
55. A. R. Soltani and H. Homeei. Weighted averages with random proportions that are jointly uniformly distributed over the unit simplex. *Statistics and Probability Letters* 79, 1215-1218, 2009.
56. A. R. Soltani, A. Shirvani, and F. Alqallaf., A class of discrete distributions induced by stable laws. *Statistics and Probability Letters* 79, 1608-1614, 2009.
57. A. R. Soltani and A. Shirvani. Truncated stable random variables: characterization and simulation. *Computational Statistics*, 25, 1, 155-161, 2010.
58. A. R. Soltani, Z. Shishebor, A. Zamani, Inference on Periodograms of Infinite Dimensional Discrete Time Periodically Correlated Processes. *Journal of Multivariate Analysis* 101, 368-373, 2010.
59. Alqallaf, F. Soltani, A. R. and N. Al-Kandari. Continuity and Analysis of Principal components. *Communications in Statistics, Theor. Methods*, 39, 19, 3558-3567, 2010.
60. A. R. Soltani, K. Khorshidian, and A. Ghafari. Prediction for Reward processes. *Stochastic Models*. 26, 242-255, 2010.
61. A. R. Soltani and M. Hashemi. Periodically Correlated autoregressive Hilbertian Processes. *Statistical Inference for Stochastic Models*, 14, 177-188, 2011.
62. Z. Shishebor, A.R. Soltani, A. Zamani. Asymptotic distribution for periodograms of infinite dimensional discrete time periodically correlated processes. *Journal of Multivariate Analysis*, Volume 102, Issue 7, 1118-1125, 2011.
- 63- M. Mohammadpour and A. R. Soltani, An Interpolation Algorithm for Multivariate ARMA Processes. *Metron*, vol. 69, Issue 3, pp 323-334, 2011.
- 64- A. R. Soltani and K. Abdollahnezhad, A new computational test procedure based on the adjusted method of moments. *J. Appl. Probab. Statist.* Vol. 7, No. 2, 2012, 9-18.
- 65- A. R. Soltani and R. Roozegar. On distribution of randomly ordered uniform incremental weighted averages: Divided difference approach. *Statist. and Probab. Lett.*, 82, 1012–1020, 2012.
- 66 - A. R. Soltani, Z. Shishebor and Z. Sajjadnia. Hilbertian Garch Models, *ANNALES DE L'I.S.U.P. PARIS*. Vol. 56 Fascicule 1, 61-80, 2012
- 67- Shishebor, A. R. Soltani, M. Sharifitabar and Z. Sajjadnia, Conditional expectation of weak random elements, *Iranian Journal of Science & Technology IJST*, A4: 461-467, 2012.
- 68 - A.R. Soltani and K. Abdollahnezhad. On Adjusted Method of Moments Estimators on Uniform Distribution Samples. *Metron*, vol. 70, 1, 2012, 27-40.

69. A. Shirvani and A. R. Soltani, A characterization for truncated Cauchy random variables with nonzero skewness parameter. *Computational Statistics*, vol. 28, 3, 1011-1016, 2013.
- 70- A.R. Soltani and L. Tafakori, A class of continuous kernels and Cauchy type heavy tail distributions. *Statistics and Probability Letters*, vol. 83, 4,1018–1027, 2013.
- 71- A. R. Soltani and K. Abdollahnezhad, Testing the log-normal mean: comparison of four test methods. *J. Applied Probability and Statistics*, vol. 8, No. 1, pp. 1-10,2013.
- 72- R. Roozegar and A. R. Soltani, A Brief Determination of Certain Class of Power Semicircle Distribution. *J. Statist. Res. Iran*, 10, 107–111, 2013.
- 73- A. R. Soltani and S. Mahmoodi, An extension theorem for finite positive measures on surfaces of finite dimensional unit balls in Hilbert spaces. *Bull. Iranian Math. Soc.* vol. 40, 1, 115–124, 2014.
- 74- Mohammadpour and A. R. Soltani, Forward moving average representations for MA processes of finite order: Multivariate stationary and periodically correlated. *Communications in Statistics - Theory and Methods*. Volume 43, Issue 1,141-150, 2014.
- 75- R. Roozegar and A. R. Soltani, Classes of power semicircle laws that are randomly weighted average distributions, *J. Statistical Computation and Simulation*. Vol. 84,12, 2636-2643, 2014.
- 76- A. Parvardeh, S. Goliforushani and A. R. Soltani. Periodically correlated and multivariate symmetric stable processes related to Periodic and cyclic flows. *Bull. Iranian Math. Soc.* Vol. 40, No. 2, pp. 339–355, 2014.
- 77- H. Haghbin,Z. Shishebor and A. R. Soltani. Hilbertian spatial periodically correlated first order autoregressive models. *Advances in data analysis and classification*. Springer, vol. 8, Issue 3, pp 303-319, 2014.
- 78- A.R. Soltani and H. Ghasemi. Semi-Markov and reward fields. *Statistics and Probability Letters* 95, 71–76, 2014.
- 79- - Nematollahi A, Soltani A, R. Mardani-Fard H, Razmi E, Typical Decision Problems in the First-Order Autoregressive Time Series *Journal of Statistical Computation and Simulation*, vol. 85, 2919-2935, 2015.
- 80- - Roozegar R, Soltani A. R., On the asymptotic behavior of randomly weighted averages *Statistics and Probability Letters* vol. 96, 269-272, 2015.
- 81-- Mahmoodi M, Nematollahi A, Soltani A. R., On the detection and estimation of the simple harmonizable processes *Iranian J. Science & Technology*, 39, 239-242, 2015.
- 82- Nematollahi, A. R., Soltani, A. R. and Mahmoodi, M. R., Periodically correlated modelling by means of the periodograms asymptotic distributions; Springer, *Statistical Papers*, vol. 58, issue 4, 1267-1278, 2017.
- 83- Aboukhamseen, S.M., Soltani, A. R. and Najafi, M., Modeling cluster detection in spatial scan statistics: Formation of a Poisson scanning window and an ADHD case study. *Statistics and probability Letters*, vol. 111, 26-31, 2016.

- 84- Soltani A, Nematollahi A, Nasirzadeh, R. (2017) On convergence of sample and population Hilbertian functional principal components. *The Bulletin of the Iranian Mathematical Society*, vol. 43, 2, 467-475, 2017.
- 85- Laleh Tafakori and A. R. Soltani. A note on the Cauchy type mixture distributions. *J. Stat. Computation and Simulation*, vol. 87, no. 9, 1901-1910, 2017.
- 86- A. Parvardeh, N. Mohammadi Jouzdani, S. Mahmoodi, and A. R. Soltani. First order autoregressive periodically correlated model in Banach spaces: Existence and central limit theorem. *J. Math. Anal. Appl.*, vol. 449, Issue 1, 756–768, 2017.
- 87- Tarami B, Soltani, A R, Shirvani, A., Strongly Harmonizable ARMA S α S Models *The Iranian J. Science and Tech. Springer*, vol. 41, Issue 3, 713–721, 2017.
- 88- M. Azimmohseni, A. R. Soltani, M. Khalafi, and N. Akbari Ghalesary, A consistent estimator for spectral density matrix of a discrete time periodically correlated process. *Probab. Math. Statist.* Vol. 38, 225-242, 2018.
- 89- A. R. Soltani, A. R. Nematollahi, M. R. Mahmoudi, On the asymptotic distribution of the periodograms for the discrete time harmonizable simple processes. *Statistical Inference for stochastic processes*, Springer vol. 22, 2, 307-322, 2019.
- 90- P. Ahmadi Ghotbi, Z. Shishebor and A. R. Soltani, Stieltjes Sample Characteristic Function: Singular Continuous Distributions Parameters Estimation. *Iranian J. Sci. Tech., Transactions A: Science* volume 43, 3003–3016 (2019).
- 91- Z. Mafakheri, A.R. Soltani, Z. Shishebor, Interpolation for second order stationary random fields: Time domain recipe. *Rocky Mountain Math. J.* 49, 3, 101-119, 2019.
- 92- A. R. Soltani, A pivot function and its limiting distribution: applications in goodness of fit and testing hypothesis. *Statistics*, Taylor-Francis, 53, 6, 1386-1395, 2019.
- 93- A. R. Soltani and R. Roozegar: Averages for multivariate random vectors with random weights: Distributional characterization and application. *REVSTAT*, 18, 4, 453–460, 2020.
- 94- M. Karamzadeh, A. R. Soltani, and H. A. Mardani-Fard: On a class of spatial renewal processes: Renewal processes synchronization probabilities, *Statistics and Probability Letters* 158 (2020) 108658.

