



## Serkan Eryılmaz, Ph.D. Professor of Statistics

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# PERSONAL

Date of Birth	10.02.1978
Place of Birth	Ankara

#### **EDUCATION**

2000-2002	Ankara University, Statistics, Ph.D.
1999-2000	Ankara University, Statistics, M.S.
1995-1999	Ankara University, Statistics, B.S.

#### **ACADEMIC POSITIONS**

September 2010-	Professor, Department of Industrial Engineering,
present	Atilim University, Turkey
March 2017-May	Visiting Professor, Department of Mathematical Sciences
2017	Durham University, UK
June 2009-August	Professor, Department of Mathematics,
2010	Izmir University of Economics, Turkey
April 2004- June	Associate Professor, Department of Mathematics,
2009	Izmir University of Economics, Turkey
July 2006- August	Research Fellow, Department of Statistics,
2006	University of Manitoba, Canada
November 2002-	Assistant Professor, Department of Mathematics,
April 2004	Izmir University of Economics, Turkey
November 1999-	Research Assistant, Department of Statistics,
October 2002	Ankara University, Turkey

#### **ADMINISTRATIVE DUTIES**

July 2017-present	Vice President, Atilim University
December 2011- October 2014	Chair, Department of Industrial Engineering, Atilim University
September 2006- August 2010	Director, Graduate School of Natural and Applied Sciences Izmir University of Economics

### HONORS&AWARDS

1	TUBITAK Incentive Award in Engineering, 2017.
2	Research grant by the Scientific and Technological Research Council of Turkey (TUBITAK), 2006.
3	Top ranked graduate of Faculty of Science with a GPA of 96.03/100, Ankara University, 1999.

## **RESEARCH INTERESTS**

1	Applied Probability
2	Reliability Engineering
3	Stochastic Models
4	Actuarial Risk Analysis
5	Probabilistic analysis of renewable energy systems

# PROFESSIONAL SERVICE

1	Serving as Editor of Istatistik: Journal of the Turkish Statistical Association
2	Serving as Editorial Board Member of Reliability Engineering and System Safety
2	<b>Serving as</b> an Area Editor of <i>IISE Transactions, Focus Issue on Quality and Reliability Engineering</i>
3	Served as an Associate Editor of IEEE Transactions on Reliability
4	<b>Served as</b> a Guest Editor of Methodology and Computing in Applied Probability
5	<b>Serving as</b> a Technical Committee Co-Chair for European Safety and Reliability Association
6	<b>Served as a</b> Reviewer for Reliability Engineering and System Safety, European Journal of Operational Research, Applied Mathematical Modeling, IEEE Transactions on Reliability, Naval Research Logistics, IIE Transactions, Computers and Industrial Engineering, Operations Research Letters, Applied Stochastic Models in Business and Industry, Journal of Applied Probability, Statistical Papers, Communications in Statistics: Theory and Methods, Communications in Statistics: Simulation and Computation, Discrete Mathematics, Annals of Combinatorics, Journal of Statistical Planning and Inference, Journal of Applied Statistics & Data Analysis, Annals of the Institute of Statistical Mathematics, Journal of Computational and Applied Mathematics, Mathematical Problems in Engineering, Statistics, Statistics & Probability Letters, , Metrika, Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability

	Eryilmaz, S. and Kan, C. "A new shock model with a change in shock size
173	distribution", <b>Probability in the Engineering and Informational Sciences</b> , in press.
172	Devrim, Y. And Eryilmaz, S. "Reliability based evaluation of hybrid wind-solar energy system", <i>Proceedings of the Institution of Mechanical Engineers,</i> <i>Part O, Journal of Risk and Reliability</i> , in press.
171	Gong, M., Eryilmaz, S. and Xie, M. "Reliability assessment of system under a generalized cumulative shock model", <i>Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability</i> , 234, 129-137, 2020.
170	Eryilmaz, S. and Ozkut, M. "Optimization problems for a parallel system with multiple types of dependent components", <i>Reliability Engineering and System Safety</i> , 199, 2020.
169	Eryilmaz, S. and Pekalp, M.H. "On optimal age replacement policy for a class of coherent systems", <i>Journal of Computational and Applied Mathematics</i> , 377, 2020.
168	Bozbulut, A.R. and Eryilmaz, S. "Generalized extreme shock models and their applications", <i>Communications in Statistics: Simulation and Computation</i> , 49, 110-120, 2020.
167	Tank, F. and Eryilmaz, S. "On bivariate compound sums", <i>Journal of Computational and Applied Mathematics</i> , 365, 2020.
166	Eryilmaz, S. "Statistical inference for a class of start-up demonstration tests", <i>Journal of Quality Technology</i> , 51,314-324, 2019.
165	Eryilmaz, S. and Kan, C. "Reliability and optimal replacement policy for an extreme shock model with a change point", <i>Reliability Engineering and System Safety</i> , 190, 2019.
164	Eryilmaz, S. and Bozbulut, A.R. "Reliability analysis of weighted-k-out-of-n system consisting of three-state components", <i>Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability</i> , 233, 972-977, 2019.
163	Gebizlioglu, O.L. and Eryilmaz, S. "The maximum surplus in a finite-time interval for a discrete-time risk model with exchangeable, dependent claim occurrences", <i>Applied Stochastic Models in Business and Industry</i> , 35, 858-870, 2019.
162	Eryilmaz, S. "Modeling systems with two dependent components under bivariate shock models", <i>Communications in Statistics: Simulation and Computation</i> , 48, 1714-1728, 2019.
161	Eryilmaz, S. and Devrim, Y. "Reliability and optimal replacement policy for a k- out-of-n system subject to shocks", <i>Reliability Engineering and System</i> <i>Safety</i> , 188, 393-397, 2019.
160	Eryilmaz, S. and Tekin, M. "Reliability evaluation of a system under a mixed shock model", <i>Journal of Computational and Applied Mathematics</i> , 352, 255-261, 2019.
159	Eryilmaz, S. and Devrim, Y. "Theoretical derivation of wind plant power distribution with the consideration of wind turbine reliability", <i>Reliability Engineering and System Safety</i> , 185, 192-197, 2019.
158	Eryilmaz, S. "(k1,k2,km)-out-of-n system and its reliability", <i>Journal of Computational and Applied Mathematics</i> , 346, 591-598, 2019.
157	Ozkut, M. and Eryilmaz, S. "Reliability analysis under Marshall-Olkin run shock model", <i>Journal of Computational and Applied Mathematics</i> , 349, 52-59, 2019.
156	Tuncel, A. and Eryilmaz, S. "System reliability under delta-shock model", <i>Communications in Statistics Theory and Methods</i> , 47, 4872-4880, 2018.
155	Yalcin, F., Eryilmaz, S. And Bozbulut, A.R. "A generalized class of correlated run shock models", <i>Dependence Modeling</i> , 6, 131-138, 2018.

154	Eryilmaz, S., Coolen, F.P.A. and Coolen-Maturi, T. "Mean residual life of coherent systems consisting of multiple types of components", <i>Naval Research Logistics</i> , 65, 86-97, 2018.
153	Eryilmaz, S. "The number of failed components in a k-out-of-n system consisting of multiple types of components", <i>Reliability Engineering and System Safety</i> , 175, 246-250, 2018.
152	Eryilmaz, S., Erkan, T.E. "Coherent system with standby components", <i>Applied Stochastic Models in Business and Industry</i> , 395-406, 34, 2018.
151	Eryilmaz, S. "Phase type stress-strength models with reliability applications", <i>Communications in Statistics: Simulation and Computation</i> , 47, 954-963, 2018.
150	Eryilmaz, S. "Stochastic ordering among success runs statistics in a sequence of exchangeable binary trials", <i>Methodology and Computing in Applied Probability</i> , 20, 563-573, 2018.
149	Eryilmaz, S. "Reliability analysis of multi-state system with three-state components and its application to wind energy", <i>Reliability Engineering and System Safety</i> , 172, 58-63, 2018.
148	Eryilmaz, S. "On the first time of ruin in two dimensional discrete time risk model with dependent claim occurrences", <i>Communications in Statistics Theory and Methods</i> , 47, 2251-2258, 2018.
147	Eryilmaz, S., Coolen, F.P.A. and Coolen-Maturi, T. "Marginal and joint reliability importance based on survival signature", <i>Reliability Engineering and System Safety</i> , 172, 118-128, 2018.
146	Eryilmaz, S. "On success runs in a sequence of dependent trials with a change point", <i>Statistics &amp; Probability Letters</i> , 132, 91-98, 2018.
145	Eryilmaz, S. "A new class of bivariate lifetime distributions", <i>Communications in Statistics:Theory and Methods</i> , 46, 12324-12335, 2017.
144	Eryilmaz, S. "Reliability analysis of systems with components having two dependent subcomponents", <i>Communications in Statistics: Simulation and Computation</i> , 46, 8005-8013, 2017.
143	Eryilmaz, S. "A note on optimization problems of a parallel system with a random number of units", <i>International Journal of Reliability, Quality, and Safety Engineering</i> , 24, 1750022-1, 1750022-9, 2017.
142	Eryilmaz, S. " $\delta$ -shock model based on Polya process and its optimal replacement policy", <i>European Journal of Operational Research</i> , 263, 690-697, 2017.
141	Eryilmaz, S. "The effectiveness of adding cold standby redundancy to a coherent system at system and component levels", <i>Reliability Engineering and System Safety</i> , 165, 331-335, 2017.
140	Franko, C., Tutuncu, G.Y. and Eryilmaz, S. "Reliability of weighted-k-out-of- n:G systems consisting of two types of components and a cold standby component", <i>Communications in Statistics: Simulation and Computation</i> , 46, 4067-4081, 2017.
139	Koutras, M.V. and Eryilmaz, S. "Compound geometric distribution of order k", <i>Methodology and Computing in Applied Probability</i> , 19, 377-393, 2017.
138	Eryilmaz, S. "The concept of weak exchangeability and its applications", <i>Metrika</i> , 80, 259- 271, 2017.
137	Eryilmaz, S. "On compound sums under dependence", <i>Insurance: Mathematics and Economics</i> , 72, 228-234, 2017.
136	Eryilmaz, S. "Computing optimal replacement time and mean residual life in reliability shock models", <i>Computers &amp; Industrial Engineering</i> , 103, 40-45, 2017.
135	Eryilmaz, S. and Gebizlioglu, O.L. "Computing finite time non-ruin probability and some joint distributions in discrete time risk model with exchangeable claim occurrences", <i>Journal of Computational and Applied Mathematics</i> , 313, 235-242, 2017.

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134	unrepairable homogeneous multi-state systems", <i>Naval Research Logistics</i> ,
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133	of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability, 230, 545-550, 2016.
132	Koutras, M.V., Triantafyllou, I.S. and Eryilmaz, S. "Stochastic comparisons between lifetimes of reliability systems with exchangeable components", <i>Methodology and Computing in Applied Probability</i> , 18, 1081-1095, 2016.
131	Eryilmaz, S. "Discrete time cold standby repairable system: Combinatorial analysis", <b>Communications in Statistics: Theory and Methods</b> , 45, 7399-7405, 2016.
130	Eryilmaz, S., Oruc, O. and Oger, V. "Joint reliability importance in coherent systems with exchangeable dependent components", <i>IEEE Transactions on Reliability</i> , 65, 1562-1570, 2016.
129	Eryilmaz, S. "A reliability model for a three-state degraded system having random degradation rates", <i>Reliability Engineering and System Safety</i> , 156, 59-63, 2016.
128	Eryilmaz, S. "On an application of concomitants of order statistics", <i>Communications in Statistics: Theory and Methods</i> , 45, 5628-5636, 2016.
127	Eryilmaz, S., Gong, M. and Xie, M. "Generalized sooner waiting time problems in a sequence of trinary trials", <i>Statistics and Probability Letters</i> , 115, 70-78, 2016.
126	Eryilmaz, S., Koutras, M.V. and Triantafyllou, I.S. "Mixed three-state k-out-of-n systems with components entering at different performance levels, <i>IEEE Transactions on Reliability</i> , 65, 969-972, 2016.
125	Eryilmaz, S. "Reliability of systems with multiple types of dependent components", <i>IEEE Transactions on Reliability</i> , 65, 1022-1029, 2016.
124	Eryilmaz, S. "Computing Barlow-Proschan importance in combined systems", <i>IEEE Transactions on Reliability</i> , 65, 159-163, 2016.
123	Eryilmaz, S. "Generalized waiting time distributions associated with runs", <i>Metrika</i> , 79, 357-368, 2016.
122	Eryilmaz, S. "Discrete time shocks models in a Markovian environment", <i>IEEE Transactions on Reliability</i> , 65, 141-146, 2016.
121	Eryilmaz, S. "A new class of lifetime distributions", <i>Statistics &amp; Probability Letters</i> , 112, 63-71, 2016.
120	Eryilmaz, S. "Compound Markov negative binomial distribution", <i>Journal of Computational and Applied Mathematics</i> , 292, 1-6, 2016.
119	Eryilmaz, S. "On the mean number of remaining components in three-state k- out-of-n system", <b>Operations Research Letters</b> , 43, 616-621, 2015.
118	Eryilmaz, S. "Component importance in coherent systems with exchangeable components", <i>Journal of Applied Probability</i> , 52, 851-863, 2015.
117	Tank, F. and Eryilmaz, S. "The distributions of sum, minima and maxima of generalized geometric random variables", <i>Statistical Papers</i> , 56, 1191-1203, 2015.
116	Eryilmaz, S. "Discrete time shock models involving runs", <b>Statistics &amp; Probability Letters</b> , 107, 93-100, 2015.
115	Eryilmaz, S. "Systems composed of two types of nonidentical and dependent components," <i>Naval Research Logistics</i> , 62, 388-394, 2015.
114	Eryilmaz, S. "Asssesment of a multi-state system under a shock model", <i>Applied Mathematics and Computation</i> , 269, 1-8, 2015.
113	Eryilmaz, S. "Mixture representations for three-state systems with three-state components", <i>IEEE Transactions on Reliability</i> , 64, 829-834, 2015.
112	Eryilmaz, S. and Tuncel, A. "Computing the signature of a generalized k-out- of-n system", <i>IEEE Transactions on Reliability</i> , 64, 766-771, 2015.

	Eryilmaz, S. "Mean time to failure of weighted k-out-of-n:G systems",
111	<b>Communications in Statistics- Simulation and Computation</b> , 44, 2705-2713, 2015.
110	Eryilmaz, S. "Dynamic assessment of multi-state systems using phase-type modeling", <b>Reliability Engineering and System Safety</b> , 140, 71-77, 2015.
109	Eryilmaz, S. and Tutuncu, G.Y. "Relative behavior of a coherent system with respect to another coherent system", <i>Statistical Papers</i> , 56, 519-529, 2015.
108	Bairamov, I. and Eryilmaz, S. "Order statistics of dependent sequences consisting of two different sets of exchangeable variables", <i>Journal of Computational and Applied Mathematics</i> , 286, 1-6, 2015.
107	Eryilmaz, S. and Tutuncu, G.Y. "Stress-strength reliability in the presence of fuzziness", <i>Journal of Computational and Applied Mathematics</i> , 282, 262-267, 2015.
106	Eryilmaz, S. "Capacity loss and residual capacity in weighted k-out-of-n:G systems", <i>Reliability Engineering and System Safety</i> , 136, 140-144, 2015.
105	Eryilmaz, S. "Lifetime of multi-state k-out-of-n systems", <b>Quality and Reliability Engineering International</b> , 30, 1015-1022, 2014.
104	Mahmoud, B. and Eryilmaz, S. "Joint reliability importance in a binary k-out-of- n:G system with exchangeable dependent components", <i>Quality Technology</i> & <i>Quantitative Management</i> , 11, 453-460, 2014.
103	Eryilmaz, S. "Modeling dependence between two multi-state components via copulas", <i>IEEE Transactions on Reliability</i> , 63, 715-720, 2014.
102	Eryilmaz, S. and Bayramoglu, K. "Life behavior of $\delta$ -shock models for uniformly distributed interarrival times", <b>Statistical Papers</b> , 55, 841-852, 2014.
101	Eryilmaz, S. "Discussion of 'Start-up demonstration tests: models, methods and applications, with some unifications", <i>Applied Stochastic Models in Business and Industry</i> , 30, 414-416, 2014.
100	Eryilmaz, S. and Bozbulut, A.R*. "An algorithmic approach for the dynamic reliability analysis of non-repairable multi-state weighted-k-out-of-n:G system", <i>Reliability Engineering and System Safety</i> , 131, 61-65, 2014.
99	Eryilmaz, S. "Multivariate copula based dynamic reliability modeling with application to weighted-k-out-of-n systems of dependent components", <i>Structural Safety</i> , 51, 23-28, 2014.
98	Eryilmaz, S. and Xie, M. "Dynamic reliability modeling of general three-state k- out-of-n:G systems: Permanent-based computational results", <i>Journal of</i> <i>Computational and Applied Mathematics</i> , 272, 97-106, 2014.
97	Eryilmaz, S. "Geometric distribution of order k with a reward", <b>Statistics &amp; Probability Letters</b> , 92, 53-58, 2014.
96	Eryilmaz, S. and Bozbulut, A.R*. "Computing marginal and joint Birnbaum, and Barlow-Proschan importances in weighted-k-out-of-n:G systems", <i>Computers &amp; Industrial Engineering</i> , 72, 255-260, 2014.
95	Yalcin, F. and Eryilmaz, S. "q-Geometric and q-Binomial distributions of order k", <i>Journal of Computational and Applied Mathematics</i> , 27, 31-38, 2014.
94	Eryilmaz, S. and Sarikaya, K*. "Modeling and analysis of weighted-k-out-of- n:G system consisting of two different types of components", <i>Proceedings of</i> <i>the Institution of Mechanical Engineers, Part O, Journal of Risk and</i> <i>Reliability</i> , 228, 265-271, 2014.
93	Eryilmaz, S. "A study on reliability of coherent systems equipped with a cold standby component", <i>Metrika</i> , 77, 349-359, 2014.
92	Eryilmaz, S. "On distributions of runs in compound binomial risk model", <i>Methodology and Computing in Applied Probability</i> , 16, 149-159, 2014.
91	Eryilmaz, S. "A new look at dynamic behavior of binary coherent system from a state-level perspective", <i>Annals of Operations Research</i> , 212, 115-125, 2014.

90	Eryilmaz, S. "Parallel and consecutive k-out-of-n:F systems under stochastic deterioration", <i>Applied Mathematics and Computation</i> , 227, 19-26, 2014.
89	Eryilmaz, S. "On signatures of series and parallel systems consisting of modules with arbitrary structures", <i>Communications in Statistics-Simulation and Computation</i> , 43, 1202-1211, 2014.
88	Eryilmaz, S. "Computing reliability indices of repairable systems via signature", <i>Journal of Computational and Applied Mathematics</i> , 260, 229-235, 2014.
87	Eryilmaz, S. "Joint reliability importance in linear m-consecutive-k-out-of-n:F systems", <i>IEEE Transactions on Reliability</i> , 62, 862-869, 2013.
86	Eryilmaz, S. "Mean instantaneous performance of a system with weighted components that have arbitrarily distributed lifetimes", <i>Reliability Engineering and System Safety</i> , 119, 290-293, 2013.
85	Eryilmaz, S. "On reliability of a k-out-of-n system equipped with a single warm standby component", <i>IEEE Transactions on Reliability</i> , 62, 499-503, 2013.
84	Eryilmaz, S. "On stress-strength reliability with a time-dependent strength", <i>Journal of Quality and Reliability Engineering</i> , Article ID: 417818, 2013.
83	Eryilmaz, S. "On the sums of distributions of order statistics from exchangeable random variables", <i>Journal of Computational and Applied Mathematics</i> , 253, 204-207, 2013.
82	Eryilmaz, S. "Component importance for linear consecutive-k-out-of-n and m- consecutive-k-out-of-n systems with exchangeable components", <i>Naval Research Logistics</i> , 60, 313-320, 2013.
81	Eryilmaz, S. "On mean residual life of discrete time multi-state systems", <i>Quality Technology &amp; Quantitative Management</i> , 10, 241-249, 2013.
80	Eryilmaz, S. and Rouyendegh, B.D. "On profust reliability of coherent systems: Signature based expressions", <i>Proceedings of the Institution of Mechanical Engineers, Part O, Journal of Risk and Reliability</i> , 227, 173-178, 2013.
79	Eryilmaz, S. "On residual lifetime of coherent systems after the <i>r</i> th failure", <b>Statistical Papers</b> , 54, 243-250, 2013.
78	Eryilmaz, S. "On reliability analysis of a k-out-of-n system with components having random weights", <i>Reliability Engineering and System Safety</i> , 109, 41-44, 2013.
77	Eryilmaz, S. "On the lifetime behavior of a discrete time shock model", <i>Journal of Computational and Applied Mathematics</i> , 237, 384-388, 2013.
76	Eryilmaz, S. "Life behavior of a system under discrete shock model," <i>Discrete Dynamics in Nature and Society</i> , Article ID: 238641, 2012.
75	Eryilmaz, S. and Mahmoud, B. "Linear m-consecutive-k,I-out-of-n:F system", <i>IEEE Transactions on Reliability</i> , 61, 787-791, 2012.
74	Eryilmaz, S. and Bayramoglu, K. "Residual lifetime of consecutive k-out-of-n systems under double monitoring", <i>IEEE Transactions on Reliability</i> , 61, 792-797, 2012.
73	Eryilmaz, S. "Reliability properties of systems with two exchangeable log- logistic components", <i>Communications in Statistics- Theory and Methods</i> , 41, 3416-3427, 2012.

72	Eryilmaz, S. "On the mean residual life of a k-out-of-n:G system with a single cold standby component", <i>European Journal of Operational Research</i> , 222, 273-277, 2012.
71	Eryilmaz, S. and Bayramoglu, I. "On extreme residual lives after the failure of the system", <i>Mathematical Problems in Engineering</i> , Article ID: 342940, 2012.
70	Eryilmaz, S. "The number of failed components in a coherent system with exchangeable components", <i>IEEE Transactions on Reliability</i> , 61, 203-207, 2012.
69	Eryilmaz, S. "Reliability of combined m-consecutive-k-out-of-n:F & consecutive kc-out-of-n systems", <i>IEEE Transactions on Reliability</i> , 61, 215-219, 2012.
68	Yalcin, F*. and Eryilmaz, S. "Start-up demonstration test based on total successes and total failures with dependent start-ups", <i>IEEE Transactions on Reliability</i> , 61, 227-230, 2012.
67	Eryilmaz, S. and Tank, F. "On reliability analysis of a two-dependent-unit series system with a standby unit", <i>Applied Mathematics and Computation</i> , 218, 7792-7797, 2012.
66	Salehi, E., Asadi, M. and Eryilmaz, S. "On the mean residual lifetime of consecutive k-out-of-n systems", <i>Test</i> , 21, 93-115, 2012.
65	Eryilmaz, S. "m-consecutive-k-out-of-n:F system with overlapping runs: Signature-based reliability analysis", <i>International Journal of Operational</i> <i>Research</i> , 15, 64-73, 2012.
64	Eryilmaz, S. and Navarro, J. "Failure rates of consecutive k-out-of-n systems", <i>Journal of the Korean Statistical Society</i> , 41, 1-11, 2012.
63	Eryilmaz, S. "Consecutive k-within-m-out-of-n:F system with nonidentical components", <i>Mathematical Problems in Engineering</i> , Article ID: 106359, 2012.
62	Eryilmaz, S. "Generalized $\delta$ -shock model via runs", <b>Statistics &amp; Probability Letters</b> , 82, 326-331, 2012.
61	Eryilmaz, S. and Yalcin, F*. "On the mean and extreme distances between failures in Markovian binary sequences", <i>Journal of Computational and Applied Mathematics</i> , 236, 1502-1510, 2011.
60	Eryilmaz, S., Gebizlioglu, O.L. and Tank, F. "Modeling of claim exceedances over random thresholds for related insurance portfolios", <i>Insurance: Mathematics and Economics,</i> 49, 496-500, 2011.
59	Eryilmaz, S. "On the lifetime of a random binary sequence", <i>Discrete Applied Mathematics</i> , 159, 1646-1649, 2011.
58	Eryilmaz, S. "The behavior of warm standby components with respect to a coherent system", <i>Statistics &amp; Probability Letters</i> , 81, 1319-1325, 2011.
57	Eryilmaz, S., Koutras, M.V. and Triantafyllou, I.S. "Signature based analysis of m-consecutive k-out-of-n:F systems with exchangeable components", <b>Naval</b>

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56	Salehi, E.T., Asadi, M. Eryilmaz, S. "Reliability analysis of consecutive k-out- of-n systems with non-identical components lifetimes", <i>Journal of Statistical</i> <i>Planning and Inference</i> , 141, 2920-2932, 2011.
55	Eryilmaz, S. and Yalcin, F*. "Distribution of run statistics in partially exchangeable processes", <i>Metrika</i> , 73, 293-304, 2011.
54	Eryılmaz, S. "Estimation in coherent reliability systems through copulas", <i>Reliability Engineering and System Safety</i> , 96, 564-568, 2011.
53	Eryilmaz, S. "Dynamic behavior of k-out-of-n:G systems", <b>Operations Research Letters</b> , 39, 155-159, 2011.
52	Eryilmaz, S. "Dynamic reliability and performance evaluation of multi-state systems with two components", <i>Hacettepe Journal of Mathematics and Statistics</i> , 40 ,125-133, 2011.
51	Eryilmaz, S. and Kan, C*. "Dynamic reliability evaluation of consecutive k- within-m-out-of-n:F system", <i>Communications in Statistics- Simulation and</i> <i>Computation</i> , 40, 70-83, 2011.
50	Eryilmaz, S. "A new perspective to stress-strength models", <i>Annals of the Institute of Statistical Mathematics</i> , 63, 101-115, 2011.
49	Eryilmaz, S. "Joint distribution of run statistics in partially exchangeable processes", <i>Statistics &amp; Probability Letters</i> , 81, 163-168, 2011.
48	Eryilmaz, S. "Circular consecutive k-out-of-n systems with exchangeable dependent components", <i>Journal of Statistical Planning and Inference</i> , 141, 725-733, 2011.
47	Eryilmaz, S. and Iscioglu, F*. "Reliability evaluation for a multi-state system under stress-strength setup", <i>Communications in Statistics- Theory and Methods</i> , 40, 547-558, 2011.
46	Eryilmaz, S. "Discrete scan statistics generated by exchangeable binary trials", <i>Journal of Applied Probability</i> , 47, 1084-1092, 2010.
45	Demir, S*. and Eryilmaz, S. "Run statistics in a sequence of arbitrarily dependent binary trials", <i>Statistical Papers</i> , 51, 959-973, 2010.
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1	on minimal spacing and record exceedance statistics", Journal of Statistical
	Planning and Inference, 90, 21-33, 2000.

# CONFERENCE PRESENTATIONS (Selected)

1	Eryilmaz, S. "Compound sums", <b>Plenary Talk</b> , 11th International Statistics Days Conference, Mugla, Turkey, October 2018.
2	Eryilmaz, S. "System reliability optimization: An overview and new problems", <b>Plenary Talk</b> , 12th International Conference on Challenges in Industrial Engineering and Operations Management, Turkey, September 2018.
3	Eryilmaz, S. "Distributions of runs in a sequence of dependent trials with a change point", Invited session talk, International Workshop on Applied Probability, Budapest, June 2018.
4	Eryilmaz, S. "The survival signature for a class of unrepairable multi-state systems", Invited session talk, Mathematical Methods in Reliability, Grenoble, France, 2017.
5	Eryilmaz, S. "A new class of distributions for lifetime data", <b>Plenary talk</b> , LinStat 2016, International Conference on Trends and Perspectives in Linear Statistical Inference, Istanbul, Turkey, 2016.
6	Eryilmaz, S. "Multi-state degraded systems with random degradation rates", <b>Plenary talk</b> , ALT 2016, 6th International Conference on Accelerated Life Testing and Degradation Models, Troyes, France, 2016.
7	Tuncel, A. and Eryilmaz, S. "The concept of survival signature and its extension to multi-state systems", ALT 2016, 6th International Conference on Accelerated Life Testing and Degradation Models, Troyes, France, 2016.
8	Eryilmaz, S., Bozbulut, A.R. and Tekin, M. "Computing mean residual lifetime in reliability shock models", ALT 2016, 6th International Conference on Accelerated Life Testing and Degradation Models, Troyes, France, 2016.
9	Eryilmaz, S. "Generalized waiting time distributions based on runs", European Meeting of Statisticians, Amsterdam, 2015.
10	Eryilmaz, S. "Dynamic reliability analysis of multi-state systems: A review and new perspectives", Invited session talk, 26th European Conference on Operational Research, Rome, Italy, 2013.
11	Eryilmaz, S. "Recent advances in signature-based reliability analysis of consecutive- <i>k</i> systems", Invited session talk: Mathematical Methods in Reliability, Beijing, China, June 2011.
12	Eryilmaz, S. "Runs and scans in exchangeable trials with application to reliability", Invited session talk, International Workshop on Applied Probability, Universidad Carlos III De Madrid, Madrid, Spain, July 2010
13	Eryilmaz, S. "Use of run statistics in financial risk management", Invited short course, International Congress on Insurance: Mathematics and Economics (IME), May 2009, Turkey.
14	Eryilmaz, S. "Descriptive statistics of run lengths", Invited session talk, International Workshop on Applied Probability, Universite de Technologie Compiegne, June 2008, France.
15	Eryilmaz, S. "Reliability evaluation of consecutive k-out-of-n systems in stress- strength setup", International Conference: Mathematical Methods in Reliability, July 2007, Glasgow, UK.
16	Eryilmaz, S. "Runs in a sequence of continuous valued random variables", Invited session talk: International Workshop on Applied Probability, University

of Connecticut, May 2006, USA.

# CITATIONS

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# **COURSES GIVEN**

1	Stochastic Processes, Reliability, Stochastic Models, Discrete Mathematics, Theory of Statistics, Combinatorial Analysis, Probability and Statistics, Mathematical Computing and Simulation at <i>Undergraduate level</i> .
2	Stochastic Processes, Copula theory and its application, Nonparametric Statistics, Theory of Statistics, Statistical Decision Theory, Applied Statistics, Engineering Decision and Risk Analysis, Reliability at <i>Graduate level</i> .

## THESES SUPERVISED

1	PhD Thesis: "Dynamic reliability analysis of multi-state systems with weighted components" with A. Bozbulut, January 2015.
2	PhD Thesis: "Optimal reliability and design in systems with weighted components" with K. Sarıkaya, January 2015.
3	PhD Thesis: "Signature based reliability analysis of systems" with C. Kan, June 2015. (Co-advisor)
4	PhD Thesis: "Distribution theory of runs and run-related statistics in sequences of dependent trials" with F. Yalçın, July 2013. (Co-advisor)
5	PhD Thesis: "Statistical reliability of multi-state systems" with F. İşçioğlu, July 2010.
6	PhD Thesis: " <i>Distribution theory of runs and patterns and their applications</i> " with S.Demir, October 2009.
7	MS Thesis: "Some reliability optimization problems in k-out-of-n systems" with S. Gul Ozdamar, August 2019
8	MS Thesis: "Phase-type distributions and their applications in reliability analysis" with M. Tekin, September 2018.
9	MS Thesis: " <i>Reliability analysis of consecutive-k systems in stress-strength setup</i> " with F. Akıcı, June 2010.
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11	MS Thesis: " <i>Reliability evaluation of systems with weighted components</i> " with T. Aksoy, June 2009.
12	MS Thesis: "Reliability of k-out-of-n systems" with E. Gürsoy, May 2006.
13	MS Thesis: "Dependence structure and stochastic comparisons among concomitants of order statistics" with F. Akdere, August 2005.
14	MS Thesis: "Run statistics and their applications" with S. Demir, March 2005.