

EKONOMETRİ SEMİNERLERİ

(FSM-EKONSEM)

EĞİTMENLER

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UYGULAMALI ZAMAN SERİSİ ANALİZİ

Birim Kök ve Durağanlık Testleri
ADF, LM, DF-GLS, KPSS

Yapısal Kırılmalı Birim Kök ve Durağanlık Testleri
Kırılmalı ADF, LM, DF-GLS, KPSS
Fourier ADF, LM, DF-GLS, KPSS

Eş-bütünleşme Testleri
Engle-Granger, Shin, Johansen

Yapısal Kırılmalı Eş-bütünleşme Testleri
Kırılmalı EG, Shin, Johansen
Fourier Shin, Johansen

Eşbütünleşme Tahmincileri
ARDL, FMOLS, CCR, DOLS
Kırılmalı ARDL, FMOLS, CCR, DOLS
Fourier ARDL, FMOLS, CCR, DOLS

VAR Modelleri ve Nedensellik Analizleri
Granger, Toda-Yamamoto
Fourier Granger, Toda-Yamamoto

Kantil Birim Kök ve Eşbütünleşme Analizi
QRADF, QCR, QARDL

SEMİNER KONULARI

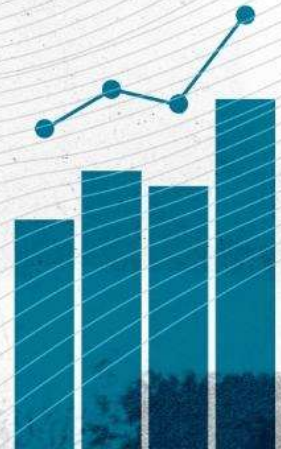


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**5-9
Ekim
2026**

09.30-13.30

Ayasofya
Yerleşkesi



Uygulamalı Zaman Serisi Analizi

Prof. Dr. Şaban Nazlıoğlu (Pamukkale Üniversitesi & Fatih Sultan Mehmet Vakıf
Üniversitesi)

7-8-9 Ekim 2026

Prof. Dr. Bülent Güloğlu (İstanbul Teknik Üniversitesi)

5-6 Ekim 2026

Tarih : 5 - 9 Ekim 2026

Saat : 9:30-13:30

Yazılım : Eviews 13+; GAUSS 25+

Önemli Notlar :

Şaban Nazlıoğlu tarafından hazırlana GAUSS - TSPDlib (Econometric Package for Time Series and Panel Data Methods- <https://github.com/aptech/tspdlib/>) kütüphanesi katılımcılara tanıtılacak ve kütüphanenin pratik kullanımları gösterilecektir. Hem TSPDlib hem de diğer GAUSS uygulamaları için katılımcıların GAUSS 25 programına sahip olmaları tavsiye edilir. Daha önceki sürümlerde bazı fonksiyonlar olmadığı için yazılan kodların çalışmaması problemi ile karşılaşilmektedir.

Genel İçerik

Birim Kök Analizi

Eş-bütünleşme Analizi

VAR Modelleri ve Nedensellik Analizi

Kantil Birim Kök ve Eş-bütünleşme Analizi

Birim Kök/Durağanlık Testleri

ADF Dickey, D.A., Fuller, W.A., 1979. Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Society* 75, 427-431.

LM Schmidt, P., Phillips, C.B. 1992. LM tests for a unit root in the presence of deterministic trends, *Oxford Bulletin of Economics and Statistics* 54(3), 257-287.

DF-GLS Elliott, G., Rothenberg, T.J., Stock, J.H., 1996. Efficient tests for an autoregressive unit root. *Econometrica* 64,813-836.

KPSS Kwiatkowski, D., Phillips, P.C.B., Schmidt, P., Shin, Y., 1992. Testing the null hypothesis of stationary against the alternative of a unit root. *Journal of Econometrics* 54,159–178.

Ani Yapısal Kırılma

- ADF Zivot, E., Andrews, W.K. (1992). Further Evidence on the Great Crash, the Oil-Price Shock, and the Unit root Hypothesis, *Journal of Business and Economic Statistics* 10(3), 251-270.
- ADF Narayan, P.K., Popp, S. (2010). A new unit root test with two structural breaks in level and slope at unknown time, *Journal of Applied Statistics* 37(9), 1425-1438
- LM Lee, J., Strazicich, M.C., 2013. Minimum LM unit root test one two structural breaks. *Economics Bulletin* 33(4), 2483–2492.
- LM Lee, J., Strazicich, M.C., 2003. Minimum Lagrange multiplier unit root test with two structural breaks. *The Review Economics and Statistics* 85, 1082–1089.
- GLS Perron, P., & Rodriguez, G. (2003). GLS detrending, efficient unit root tests and structural change. *Journal of Econometrics*, 115(1), 1-27.
- GLS Carrion-i-Silvestre, J.L., D. Kim and P. Perron (2009), GLS-based Unit Root Tests with Multiple Structural Breaks both Under the Null and the Alternative Hypotheses, *Econometric Theory* (25), 1754-1792.
- KPSS Kurozumi, E. (2002). Testing for stationarity with a break. *Journal of Econometrics*, 108(1), 63-99.
- KPSS Carrion-i-Silvestre, J. Ll. and Sansó, A. (2007): “The KPSS test with two structural breaks”, *Spanish Economic Review*, 9, 2, 105-127.

Yumuşak Yapısal Kırılma

- Fourier Enders, W., Lee, J., 2012. “The flexible Fourier form and Dickey-Fuller type unit root tests”, *Economics Letters*, 117, 196-199.
- Fourier Enders, W., Lee, J., 2012. “A unit root test using a Fourier series to approximate smooth breaks”, *Oxford Bulletin of Economics and Statistics*, 74(4), 574-599.
- GLS Rodrigues, P., Taylor, A.M.R., 2012. “The flexible Fourier form and local GLS de-trending unit root tests”, *Oxford Bulletin of Economics and Statistics*, 74(5), 736-759.

Fourier KPSS	Becker, R., Enders, W., Lee, J., 2006. "A stationarity test in the presence of an unknown number of smooth breaks", <i>Journal of Time Series Analysis</i> , 27(3), 381-409.
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Eş-bütünleşme Testleri

EG-ADF	Engle, R. F., and Granger, C. W. J. (1987). Co-Integration and Error Correction: Representation, Estimation and Testing. <i>Econometrica</i> , 55, 251-276.
Shin-KPSS	Shin, Y. (1994). A Residual-Based Test of the Null of Cointegration against the Alternative of No Cointegration. <i>Econometric Theory</i> , 10(1), 91-115.
Bounds Test	Pesaran, M. H., Shin, Y. and Smith, R. J. (2001), Bounds Testing Approaches to the Analysis of Level Relationship, <i>Journal of Applied Econometrics</i> , 16, 289-326.
Johansen	Johansen S. (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. <i>Econometrica</i> 59(6):1551-1580.

Ani Yapısal Kırılma

EG-ADF (Break)	Gregory, A.W., Hansen, B., 1996. Residual-based tests for cointegration in models with regime shifts. <i>Journal of Econometrics</i> 70, 99-126.
LM (Break)	Westerlund, J. and Edgerton D.L. (2006). New improved tests for cointegration with structural breaks, <i>Journal of Time Series Analysis</i> 28(2), 188-224.
Shin-KPSS (Break)	Carrion-i-Silvestre, J.L., Sanso, A. (2006). Tests the Null of Cointegration with Structural Breaks. <i>Oxford Bulletin Economics and Statistics</i> , 68(5), 623-646.
Johansen (Break)	Harris, D., Leybourne, S. J., & Taylor, A. R. (2016). Tests of the cointegration rank in VAR models in the presence of a possible break in trend at an unknown point. <i>Journal of Econometrics</i> , 192(2), 451-467.

Yumuşak Yapısal Kırılma

Shin-KPSS (Fourier)	Tsong, C.C., Lee, C.F., Tsai, L.J., & Hu, T.C. (2016). The Fourier approximation and testing for the null of cointegration. <i>Empirical Economics</i> , 51(3), 1085-1113.
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Johansen Pascalau, R., Lee, J., Nazlioglu, S., & Lu, Y. (2022). Johansen-type (Fourier) cointegration tests with a Fourier function. *Journal of Time Series Analysis*, 43(5), 828-852.

Eş-bütünleşme Tahmincileri

- FMOLS Phillips, Peter C. B. and Bruce E. Hansen (1990). "Statistical Inference in Instrumental Variables Regression with I(1) Processes," *Review of Economics Studies*, 57, 99-125.
- CCR Park, Joon Y. (1992). "Canonical Cointegrating Regressions," *Econometrica*, 60, 119-143.
- DOLS Stock, James H. and Mark Watson (1993). "A Simple Estimator of Cointegrating Vectors In Higher Order Integrated Systems," *Econometrica*, 61, 783-820.
- ARDL Pesaran, M. H. and Shin, Y. (1999), An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis. in S. Strom (ed), *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*. 1998. Chapter 11, Cambridge University Press, Cambridge.
- Yapısal Kırılmalar Break-FMOLS; Break-CCR; Break-DOLS; Break-ARDL
Fourier-FMOLS; Fourier-CCR; Fourier-DOLS; Fourier-ARDL

VAR Modeli ve Nedensellik Testleri

- GC Granger, C.W.J., 1969. Investigating causal relations by econometric models and cross-spectral methods. *Econometrica* 37, 424-438.
- TY Toda, H.Y., Yamamoto, T., 1995. Statistical inference in vector autoregression with possibly integrated processes. *Journal of Econometrics* 66, 225-250.
- Fourier-GC Enders, W., & Jones, P. (2016). Grain prices, oil prices, and multiple smooth breaks in a VAR. *Studies in Nonlinear Dynamics & Econometrics*, 20(4), 399-419.

- Fourier-TY Nazlioglu, S., Gormus, A., Soytas, U. (2016). Oil Prices and Real Estate Investment Trusts (REITs): Gradual-Shift Causality and Volatility Transmission Analysis. *Energy Economics* 60(1): 168-175.
- Gormus, A., Nazlioglu, S., Soytas, U. (2018). High-Yield Bond and Energy Markets. *Energy Economics* 69: 101-110.
- Nazlioglu, S., Soytas, U., Gormus, A. (2018). Oil Prices and Monetary Policy in Emerging Markets: Structural Shifts in Causal Linkages. *Emerging Markets Finance and Trade*. (55): 105-117.

Kantil Birim Kök, Eş-bütünleşme ve Hata Düzeltme

- QRADF Koenker, R., Xiao, Z., 2004. Unit root quantile autoregression inference. *Journal of the American Statistical Association* 99, 775-787.
- D-QCR Xiao, Z. 2009. "Quantile Cointegrating Regression." *Journal of Econometrics* 150 (2): 248-260.
- Nazlioglu, S., Gurel, S., Gunes, S., & Kilic, E. (2022). Asymmetric Fisher effect in inflation targeting emerging markets: evidence from quantile co-integration. *Applied Economics Letters*, 29(21), 2007-2014.
- FM-QCR Xiao, Z. 2009. "Quantile Cointegrating Regression." *Journal of Econometrics* 150 (2): 248-260.
- Kuriyama, N. (2016). Testing cointegration in quantile regressions with an application to the term structure of interest rates. *Studies in Nonlinear Dynamics & Econometrics*, 20(2), 107-121.
- QARDL Cho, J. S., Kim, T. H., & Shin, Y. (2015). Quantile cointegration in the autoregressive distributed-lag modeling framework. *Journal of Econometrics*, 188(1), 281-300.
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