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PSA-NSA mixtures: **SAR-SMA**

The UNIVARIATE Procedure Variable: y

| Moments | | | | | |
|-------------------|------------|------------------|------------|--|--|
| N 533 Sum Weights | | | | | |
| Mean | 0 | Sum Observations | 0 | | |
| Std Deviation | 1.70090012 | Variance | 2.89306123 | | |
| Skewness | 0.39794595 | Kurtosis | 0.29758284 | | |
| Uncorrected SS | 1539.10858 | Corrected SS | 1539.10858 | | |
| Coeff Variation | | Std Error Mean | 0.07367416 | | |

| | Basic Statistical Measures | | | | | |
|--------|----------------------------|---------------------|----------|--|--|--|
| Loc | Location Variability | | | | | |
| Mean | 0.00000 | Std Deviation 1.70 | | | | |
| Median | -0.04666 | Variance | 2.89306 | | | |
| Mode | | Range | 10.11363 | | | |
| | | Interquartile Range | 2.14046 | | | |

| Tests for Location: Mu0=0 | | | | | | |
|---------------------------|-------------------|---------|----------|--------|--|--|
| Test | Statistic p Value | | | | | |
| Student's t | t | 0 | Pr > t | 1.0000 | | |
| Sign | М | -5.5 | Pr >= M | 0.6649 | | |
| Signed Rank | S | -3103.5 | Pr >= S | 0.3835 | | |

| Tests for Normality | | | | | |
|------------------------|------|----------|-----------|---------|--|
| Test Statistic p Value | | | | | |
| Shapiro-Wilk | w | 0.98802 | Pr < W | 0.0002 | |
| Kolmogorov-Smirnov | D | 0.040682 | Pr > D | 0.0311 | |
| Cramer-von Mises | W-Sq | 0.193277 | Pr > W-Sq | 0.0066 | |
| Anderson-Darling | A-Sq | 1.531754 | Pr > A-Sq | <0.0050 | |

| Quantiles (Definition 5) | | |
|--------------------------|-----------|--|
| Level | Quantile | |
| 100% Max | 5.5307520 | |
| 99% | 4.4615567 | |
| 95% | 3.2267940 | |
| | | |

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| 90% | 2.1396735 |
|------------|------------|
| 75% Q3 | 1.0014844 |
| 50% Median | -0.0466571 |
| 25% Q1 | -1.1389709 |
| 10% | -2.0303478 |
| 5% | -2.5536796 |
| 1% | -3.5573525 |
| 0% Min | -4.5828739 |

| Extreme Observations | | | | |
|-----------------------------|-----|---------|-----|--|
| Lowe | st | Highe | st | |
| Value | Obs | Value | Obs | |
| -4.58287 | 417 | 4.71632 | 117 | |
| -4.09607 | 448 | 4.87114 | 235 | |
| -4.06519 | 443 | 5.01439 | 229 | |
| -4.01396 | 183 | 5.10869 | 406 | |
| -3.90734 | 349 | 5.53075 | 105 | |
| | | | | |

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PSA-NSA mixtures: SAR-SMA

The SPATIALREG Procedure

Model: MODEL 1 Dependent Variable: y

| Model Fit Summary | | | | |
|---------------------------|----------------|--|--|--|
| Dependent Variable | У | | | |
| Number of Observations | 533 | | | |
| Data Set | WORK.STEP1 | | | |
| Spatial Weights | WORK.SWM | | | |
| Model | SAR | | | |
| Log Likelihood | -881.33654 | | | |
| Maximum Absolute Gradient | 4.17402E-6 | | | |
| Number of Iterations | 25 | | | |
| Optimization Method | Newton-Raphson | | | |
| AIC | 1769 | | | |
| SBC | 1782 | | | |

Algorithm converged.

| Parameter Estimates | | | | | | |
|--|---|----------|----------|-------|--------|--|
| Parameter DF Estimate Standard Error t Value Pr > t | | | | | | |
| Intercept | 1 | 0.003837 | 0.050615 | 0.08 | 0.9396 | |
| _rho | 1 | 0.777116 | 0.031166 | 24.93 | <.0001 | |
| _sigma2 | 1 | 1.365458 | 0.086934 | 15.71 | <.0001 | |

| Correlation of Parameter Estimates | | | | | |
|------------------------------------|------------------------|---------|---------|--|--|
| | Intercept _rho _sigma2 | | | | |
| Intercept | 1.0000 | 0.0030 | -0.0008 | | |
| _rho | 0.0030 | 1.0000 | -0.2725 | | |
| _sigma2 | -0.0008 | -0.2725 | 1.0000 | | |

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PSA-NSA mixtures: SAR-SMA

The SPATIALREG Procedure

Model: MODEL 1 Dependent Variable: y

| Model Fit Summary | | | | |
|---------------------------|----------------|--|--|--|
| Dependent Variable | У | | | |
| Number of Observations | 533 | | | |
| Data Set | WORK.STEP1 | | | |
| Spatial Weights | WORK.SWM | | | |
| Model | SARMA | | | |
| Log Likelihood | -880.20468 | | | |
| Maximum Absolute Gradient | 6.10187E-6 | | | |
| Number of Iterations | 27 | | | |
| Optimization Method | Newton-Raphson | | | |
| AIC | 1768 | | | |
| SBC | 1786 | | | |

Algorithm converged.

| Parameter Estimates | | | | | | | |
|---------------------|----|----------|-------------------|---------|-------------------|--|--|
| Parameter | DF | Estimate | Standard Error | t Value | Approx Pr > t | | |
| Intercept | 1 | 0.003776 | 0.038802 | 0.10 | 0.9225 | | |
| _rho | 1 | 0.855526 | 0.049761 | 17.19 | <.0001 | | |
| _lambda | 1 | 0.215597 | 0.133729 | 1.61 | 0.1069 | | |
| _sigma2 | 1 | 1.304221 | 0.087825 | 14.85 | <.0001 | | |

| Correlation of Parameter Estimates | | | | tes |
|------------------------------------|-----------|---------|---------|---------|
| | Intercept | _rho | _lambda | _sigma2 |
| Intercept | 1.0000 | -0.0023 | -0.0047 | 0.0005 |
| _rho | -0.0023 | 1.0000 | 0.8715 | -0.4068 |
| _lambda | -0.0047 | 0.8715 | 1.0000 | -0.3134 |
| _sigma2 | 0.0005 | -0.4068 | -0.3134 | 1.0000 |

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PSA-NSA mixtures: **SAR-SMA**

| Obs | rho | theta |
|-----|---------|---------|
| 1 | 0.85553 | 0.21560 |

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PSA-NSA mixtures: **SAR-SMA**

| sumc | sumc2 | |
|------|-------|--|
| 2934 | 16982 | |

| mc | emc | semc | zmc | pr |
|-----------|----------|-----------|-----------|-----------|
| -0.002452 | -0.00188 | 0.0261087 | -0.021921 | 0.4912556 |

| gro | segr | z | pr |
|-----------|----------|-----------|-----------|
| 0.9589984 | 0.068023 | -0.602761 | 0.2733338 |

| mc | emc | semc | zmc | pr |
|-----------|----------|-----------|-----------|-----------|
| -0.075305 | -0.00188 | 0.0261087 | -2.812278 | 0.0024596 |

| gro | segr | z | pr |
|-----------|----------|-----------|-----------|
| 1.0327869 | 0.068023 | 0.4819964 | 0.3149043 |