

# Graphics Eger Paper

Leon Hammerla

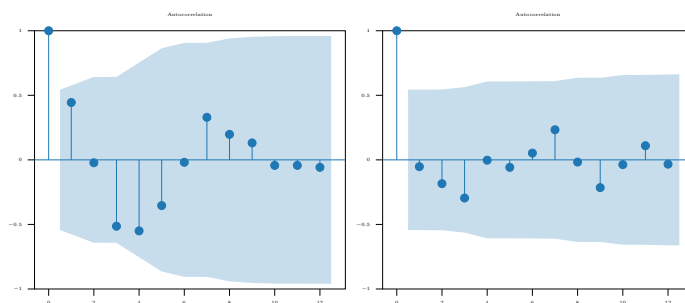
February 7, 2022

## Contents

# 1 sent-Based:

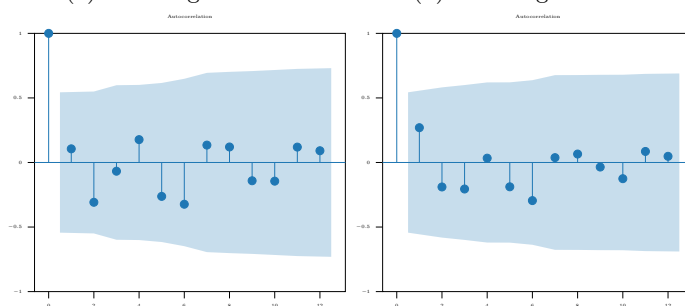
## 1.1 n verbs0

### 1.1.1 Statistics-acf



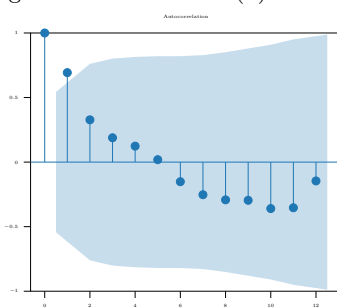
(a) sent length 02-09

(b) sent length 10-19



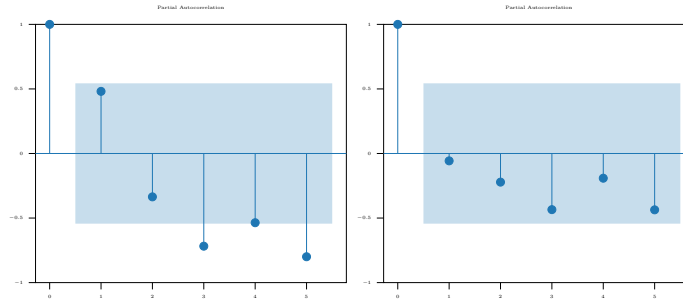
(c) sent length 20-29

(d) sent length 30-39



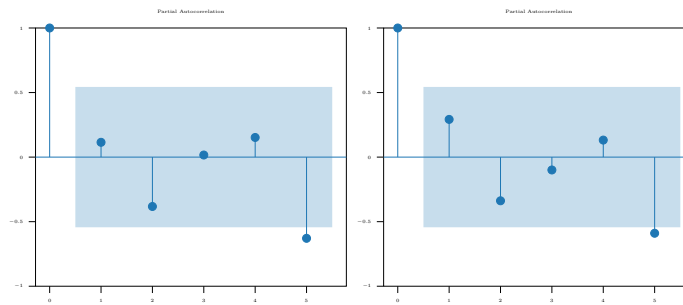
(e) sent length 40+

### 1.1.2 Statistics-pacf



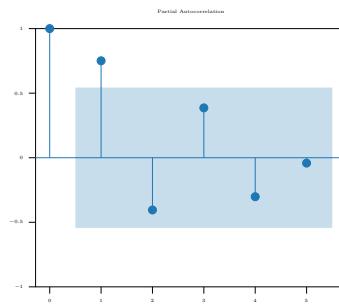
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



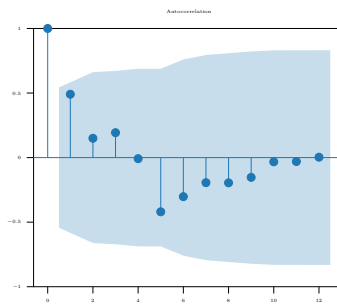
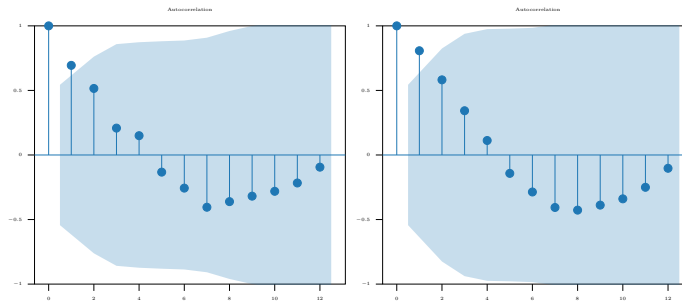
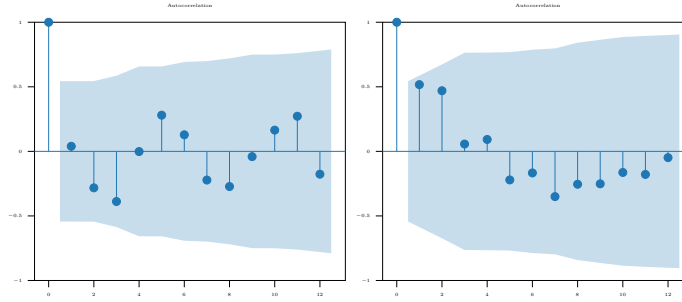
(e) sent length 40+

### **1.1.3 Statistics-cor**

sent length 02-09 - Correlation: 0.07242708839203445  
sent length 10-19 - Correlation: 0.17148725149889438  
sent length 20-29 - Correlation: -0.08160620446137622  
sent length 30-39 - Correlation: -0.2258211215222129  
sent length 40+ - Correlation: -0.9202143981918636

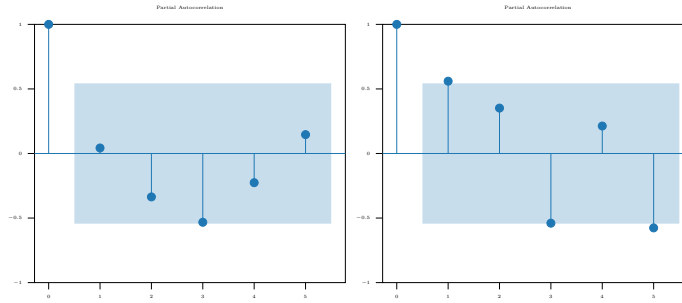
## 1.2 complexity ratio1

### 1.2.1 Statistics-acf



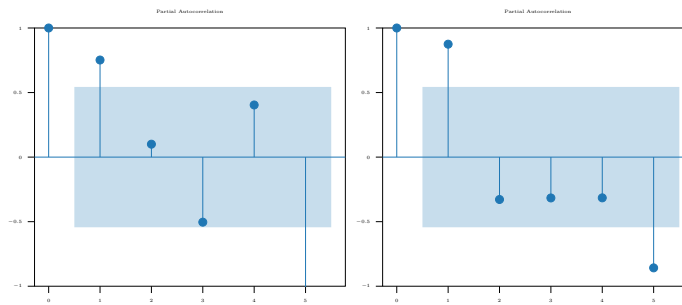
(e) sent length 40+

## 1.2.2 Statistics-pacf



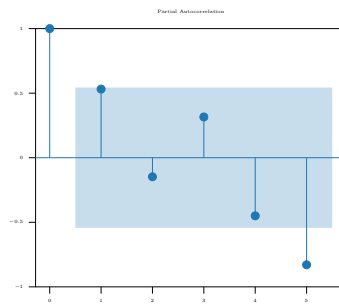
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

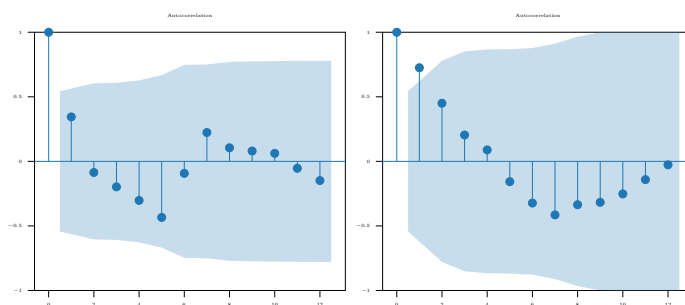
### **1.2.3 Statistics-cor**

sent length 02-09 - Correlation: 0.06131994084752622  
sent length 10-19 - Correlation: -0.762958687155259  
sent length 20-29 - Correlation: -0.8842066085346095  
sent length 30-39 - Correlation: -0.9482945038205914  
sent length 40+ - Correlation: -0.5723898143023349



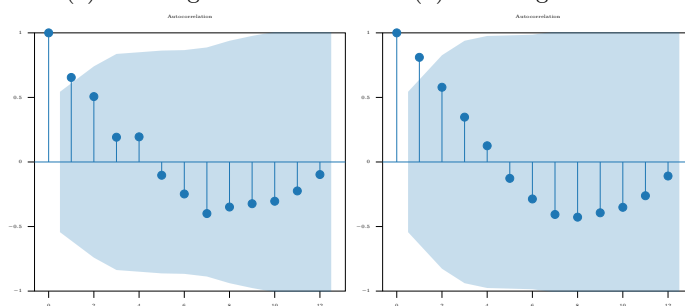
## 1.3 absolute complexity2

### 1.3.1 Statistics-acf



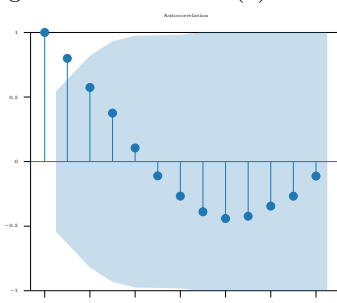
(a) sent length 02-09

(b) sent length 10-19



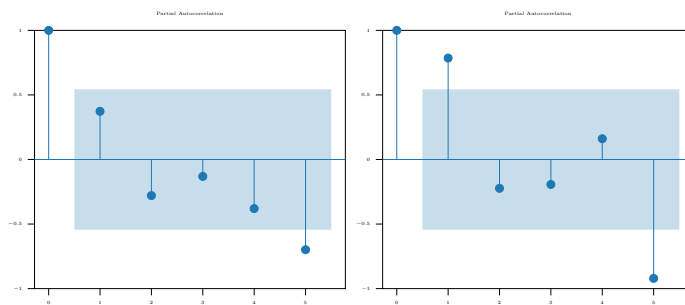
(c) sent length 20-29

(d) sent length 30-39



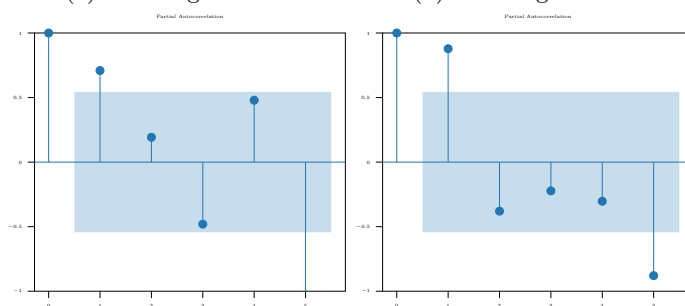
(e) sent length 40+

### 1.3.2 Statistics-pacf



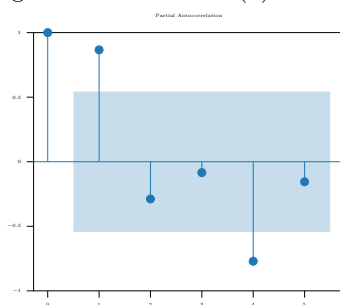
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



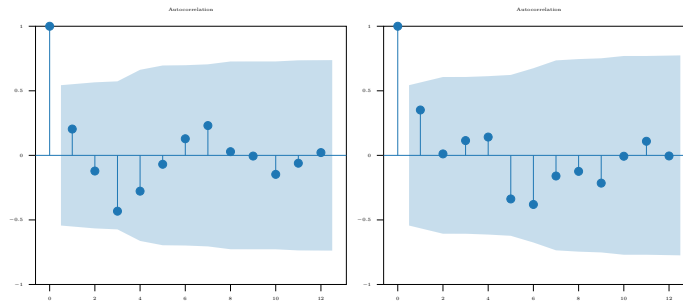
(e) sent length 40+

### **1.3.3 Statistics-cor**

sent length 02-09 - Correlation: 0.3174440011245764  
sent length 10-19 - Correlation: -0.8234421843263167  
sent length 20-29 - Correlation: -0.8882500140466643  
sent length 30-39 - Correlation: -0.9572543091732437  
sent length 40+ - Correlation: -0.9629535194508106

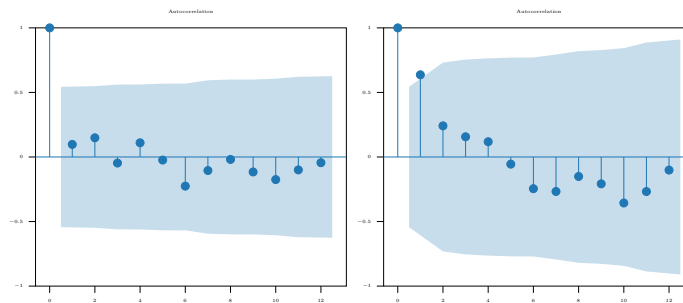
## 1.4 order of tree3

### 1.4.1 Statistics-acf



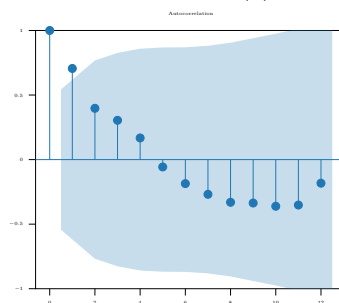
(a) sent length 02-09

(b) sent length 10-19



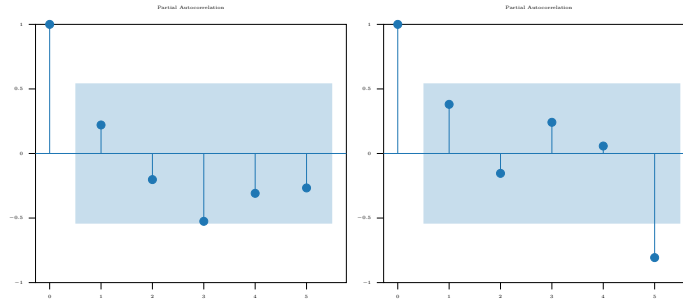
(c) sent length 20-29

(d) sent length 30-39

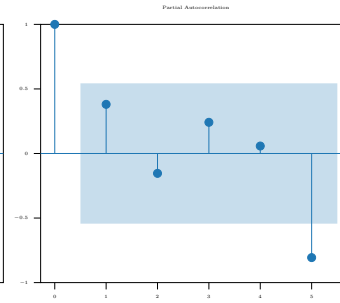


(e) sent length 40+

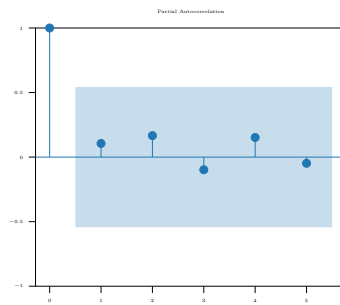
## 1.4.2 Statistics-pacf



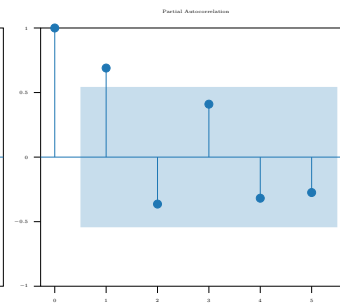
(a) sent length 02-09



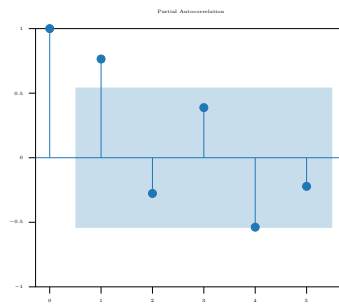
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



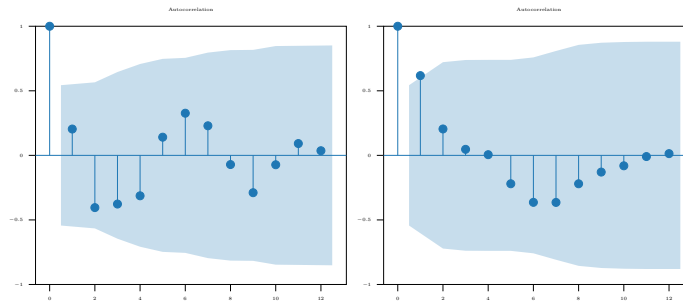
(e) sent length 40+

### **1.4.3 Statistics-cor**

sent length 02-09 - Correlation: 0.2566034441546832  
sent length 10-19 - Correlation: -0.4673390681675046  
sent length 20-29 - Correlation: -0.5666871217688604  
sent length 30-39 - Correlation: -0.8372341505472557  
sent length 40+ - Correlation: -0.9579819483457767

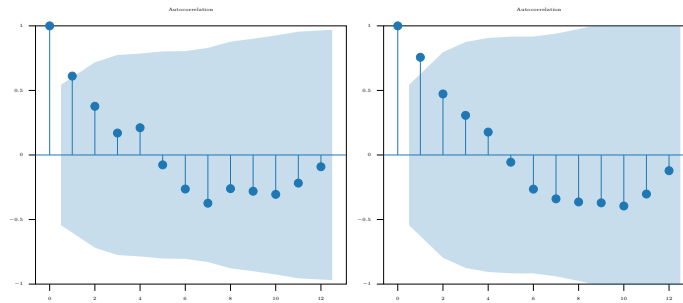
## 1.5 dependency index4

### 1.5.1 Statistics-acf



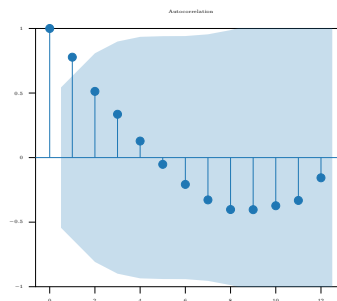
(a) sent length 02-09

(b) sent length 10-19



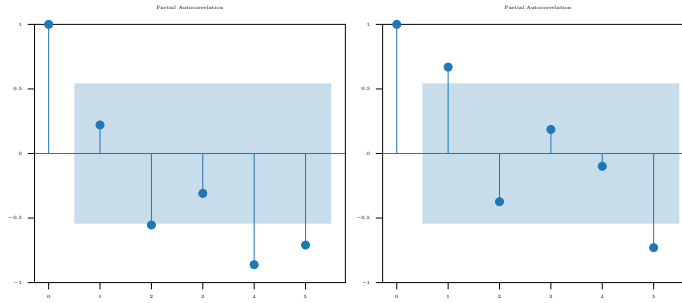
(c) sent length 20-29

(d) sent length 30-39



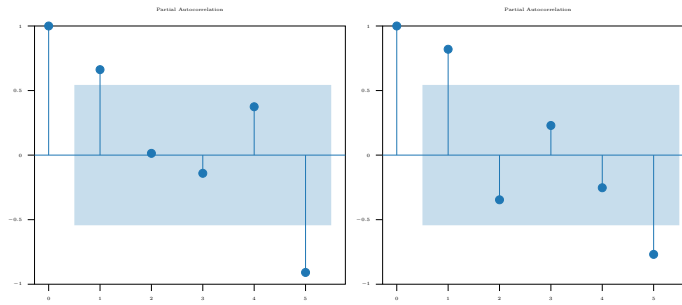
(e) sent length 40+

## 1.5.2 Statistics-pac



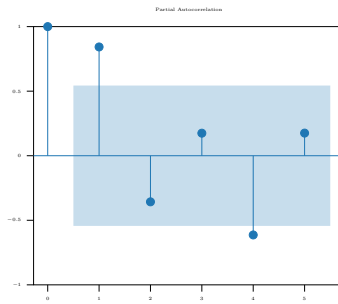
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

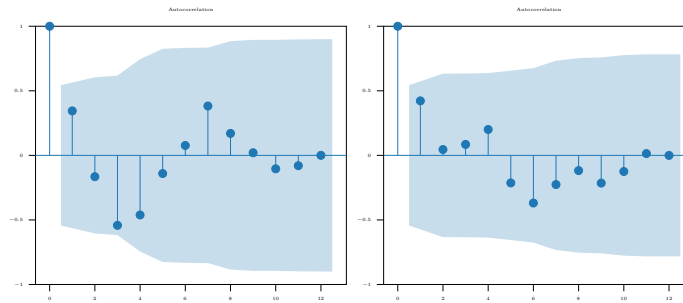


### **1.5.3 Statistics-cor**

sent length 02-09 - Correlation: 0.1126632455146636  
sent length 10-19 - Correlation: 0.6037616960031261  
sent length 20-29 - Correlation: 0.8518607236499146  
sent length 30-39 - Correlation: 0.9557702117110717  
sent length 40+ - Correlation: 0.9814397562057702

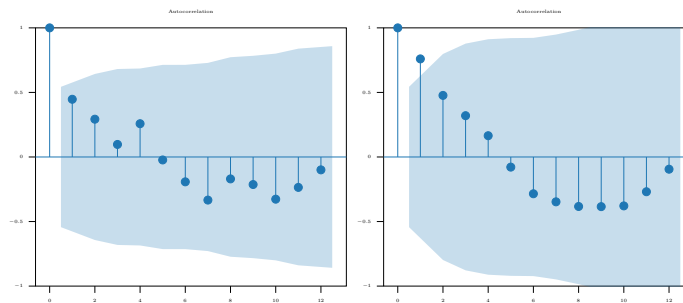
## 1.6 stratum of tree5

### 1.6.1 Statistics-acf



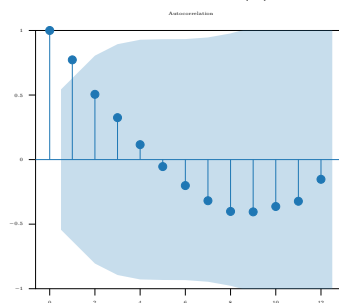
(a) sent length 02-09

(b) sent length 10-19



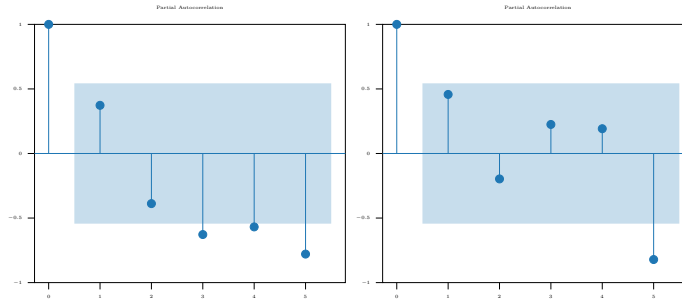
(c) sent length 20-29

(d) sent length 30-39

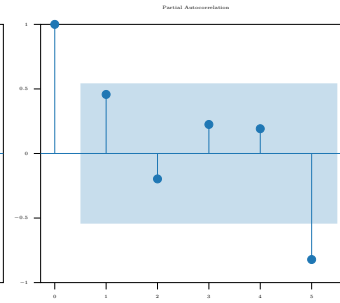


(e) sent length 40+

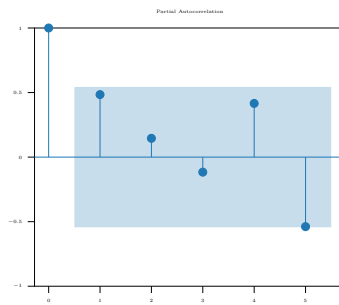
## 1.6.2 Statistics-pacf



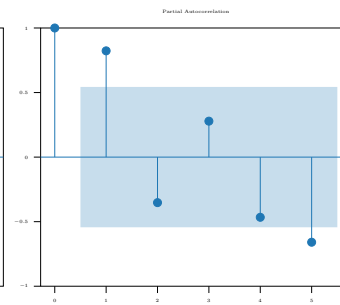
(a) sent length 02-09



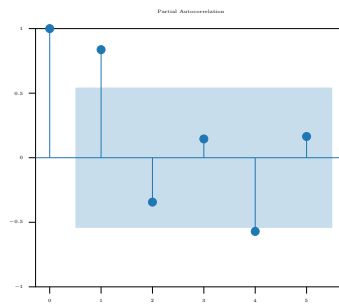
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



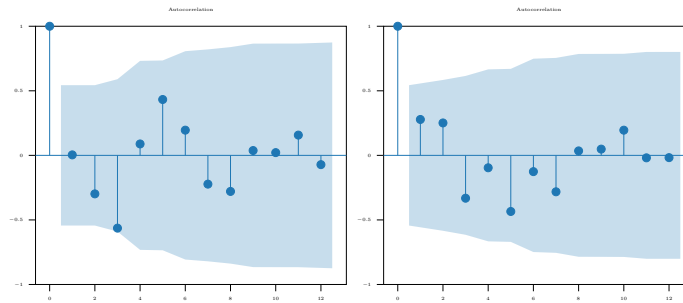
(e) sent length 40+

### **1.6.3 Statistics-cor**

sent length 02-09 - Correlation: -0.10864765377546426  
sent length 10-19 - Correlation: 0.5785675390776935  
sent length 20-29 - Correlation: 0.8151740753753253  
sent length 30-39 - Correlation: 0.9400232050387  
sent length 40+ - Correlation: 0.9734503541615976

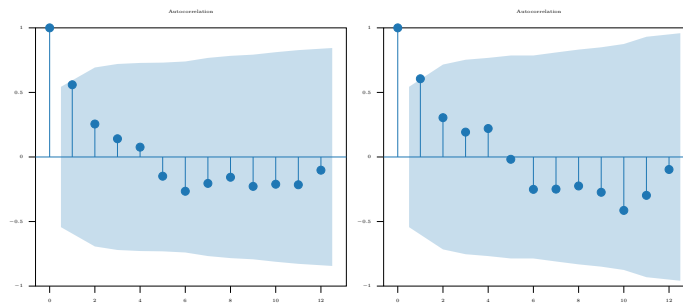
## 1.7 depth of tree6

### 1.7.1 Statistics-acf



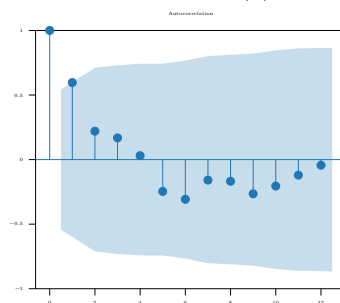
(a) sent length 02-09

(b) sent length 10-19



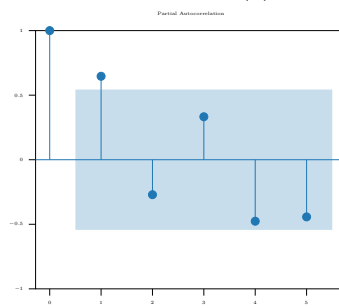
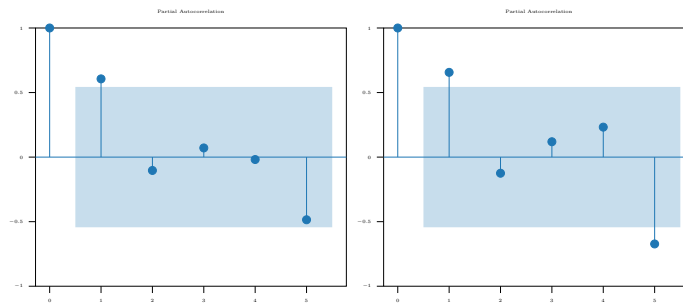
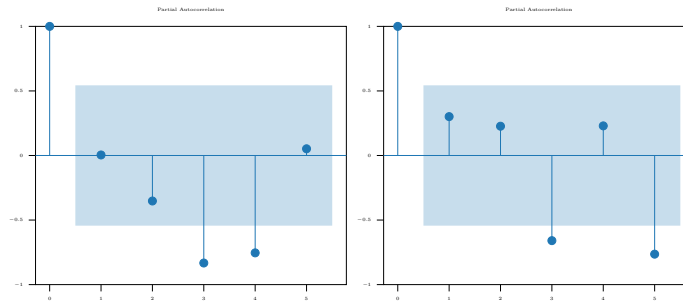
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

## 1.7.2 Statistics-pacf

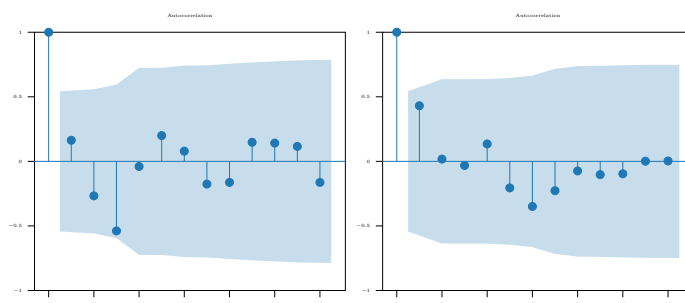


### 1.7.3 Statistics-cor

sent length 02-09 - Correlation: 0.1043674556148071  
sent length 10-19 - Correlation: 0.2530944588484612  
sent length 20-29 - Correlation: 0.7759406355346464  
sent length 30-39 - Correlation: 0.8845067538097244  
sent length 40+ - Correlation: 0.7227533951242947

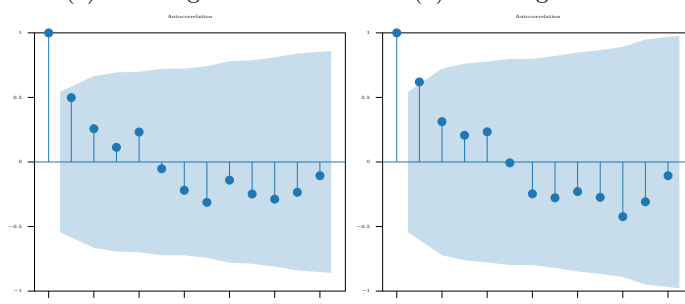
## 1.8 ratio vertices on lp from rt7

### 1.8.1 Statistics-acf



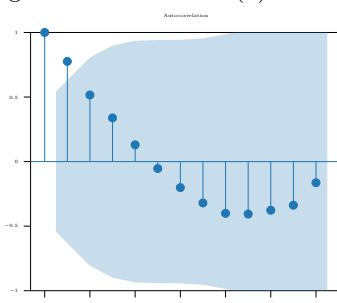
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

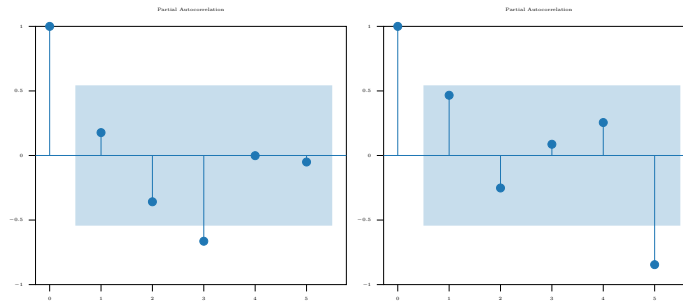
(d) sent length 30-39



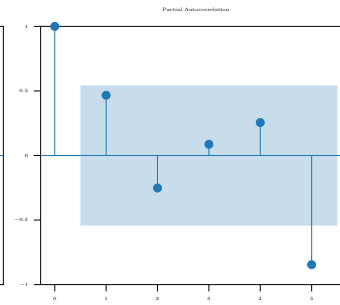
(e) sent length 40+



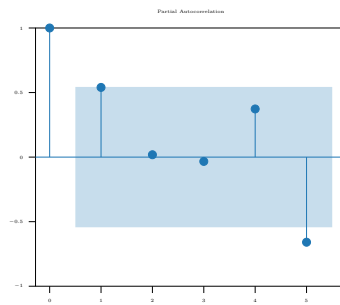
## 1.8.2 Statistics-pacf



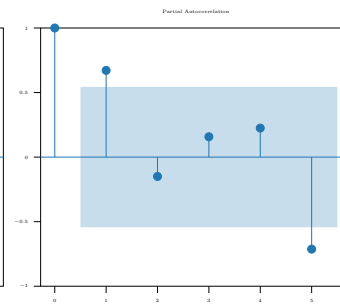
(a) sent length 02-09



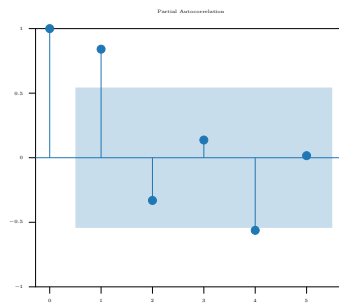
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



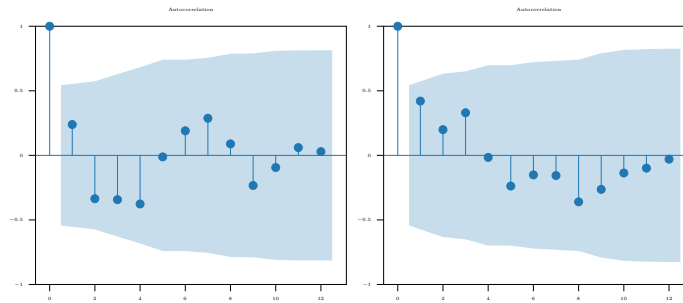
(e) sent length 40+

### **1.8.3 Statistics-cor**

sent length 02-09 - Correlation: -0.07174390418328722  
sent length 10-19 - Correlation: 0.516599549299152  
sent length 20-29 - Correlation: 0.8112578194582254  
sent length 30-39 - Correlation: 0.8985975776007952  
sent length 40+ - Correlation: 0.9860562284344925

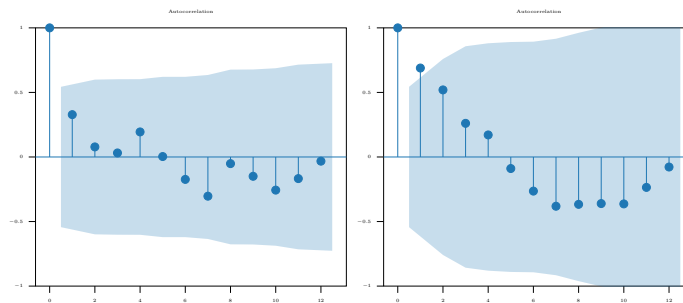
## 1.9 leaf distance entropy8

### 1.9.1 Statistics-acf



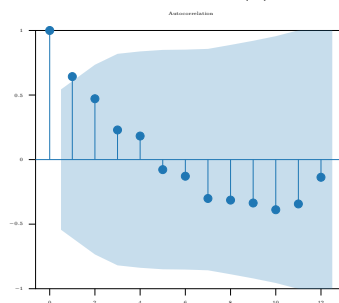
(a) sent length 02-09

(b) sent length 10-19



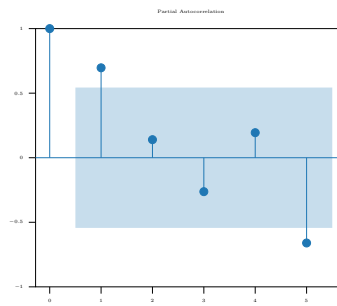
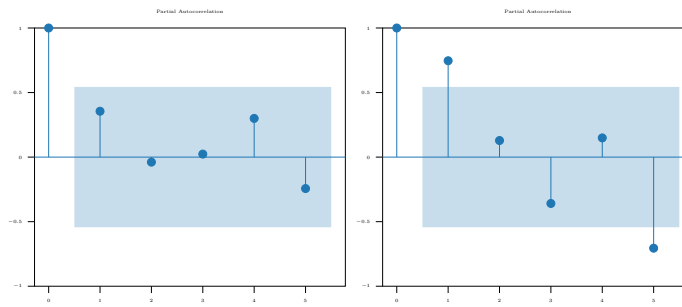
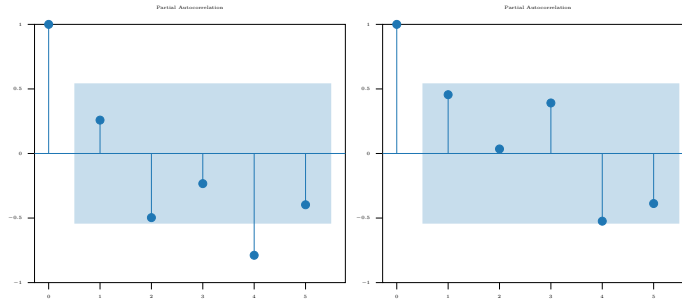
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

## 1.9.2 Statistics-pacf

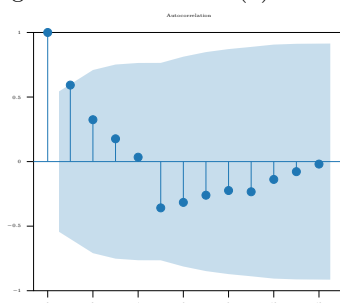
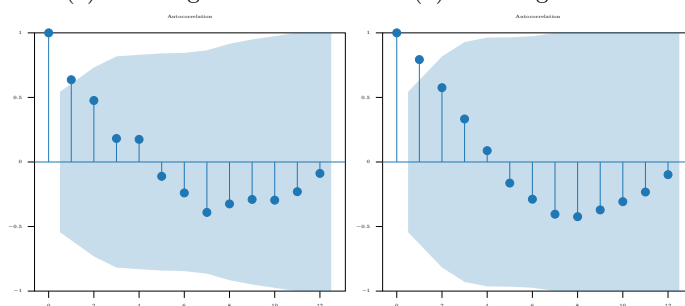
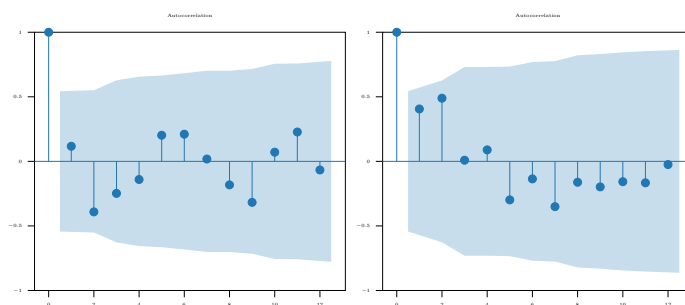


### **1.9.3 Statistics-cor**

sent length 02-09 - Correlation: -0.06323908890341841  
sent length 10-19 - Correlation: 0.7008128783464547  
sent length 20-29 - Correlation: 0.6753224149739813  
sent length 30-39 - Correlation: 0.9119277840228334  
sent length 40+ - Correlation: 0.9412161652161569

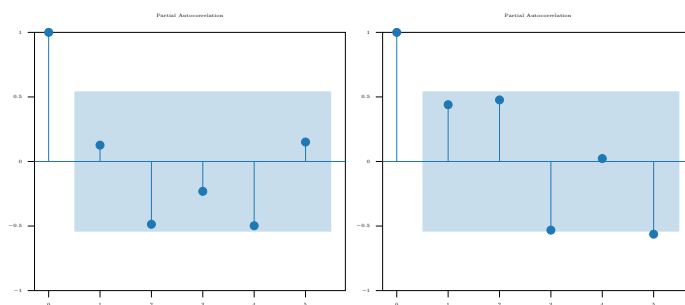
## 1.10 ratio of leafs at d1 to rt9

### 1.10.1 Statistics-acf



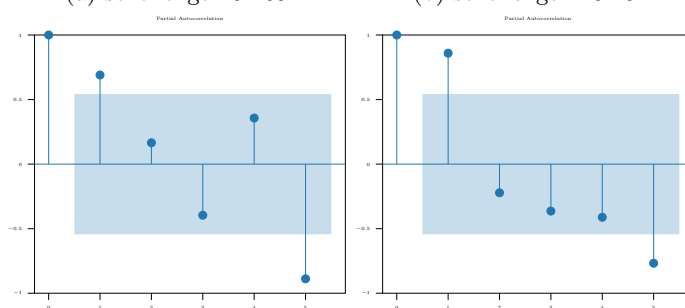
(e) sent length 40+

## 1.10.2 Statistics-pacf



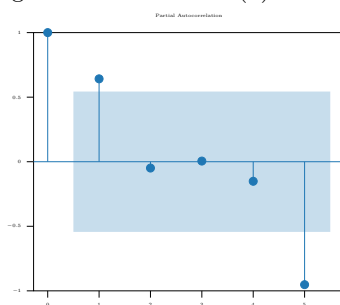
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

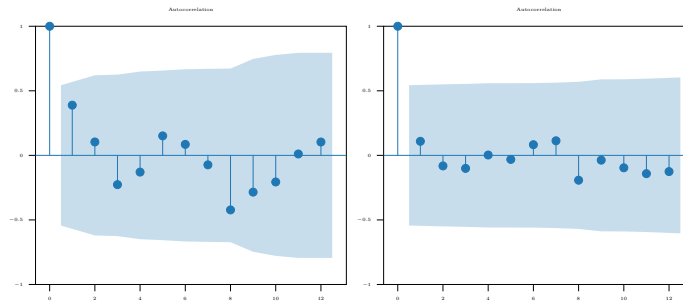
### 1.10.3 Statistics-cor

sent length 02-09 - Correlation: 0.16215991352586295  
sent length 10-19 - Correlation: -0.7088766409420055  
sent length 20-29 - Correlation: -0.8706624799437652  
sent length 30-39 - Correlation: -0.9287936994342408  
sent length 40+ - Correlation: -0.6966930171464994



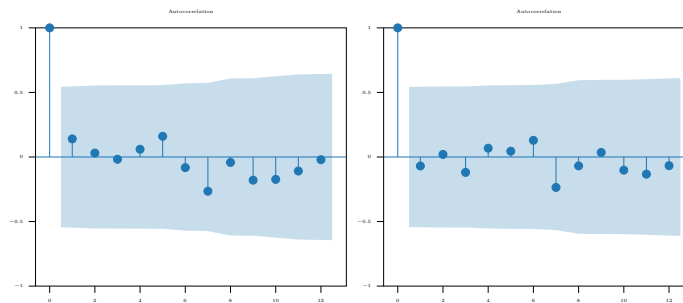
## 1.11 mean dependency distance10

### 1.11.1 Statistics-acf



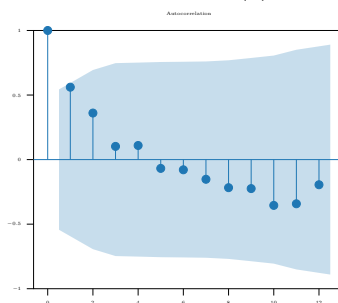
(a) sent length 02-09

(b) sent length 10-19



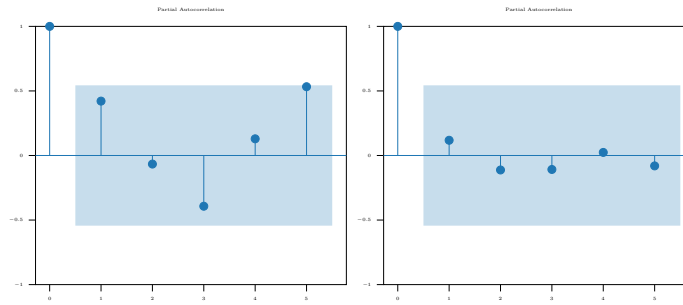
(c) sent length 20-29

(d) sent length 30-39

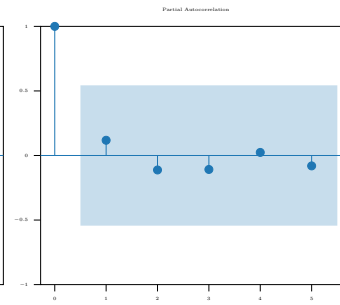


(e) sent length 40+

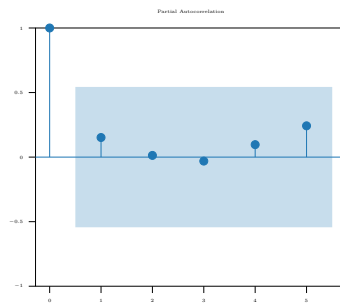
### 1.11.2 Statistics-pacf



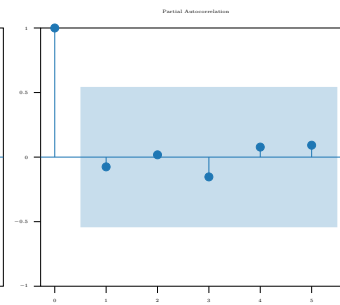
(a) sent length 02-09



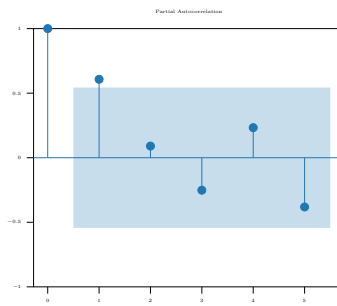
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



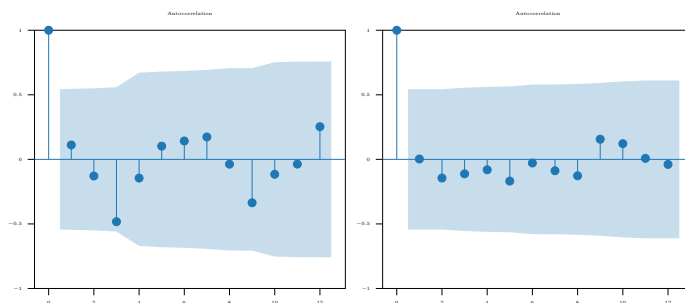
(e) sent length 40+

### 1.11.3 Statistics-cor

sent length 02-09 - Correlation: 0.547626629943543  
sent length 10-19 - Correlation: -0.5423392418187624  
sent length 20-29 - Correlation: -0.5823470950020084  
sent length 30-39 - Correlation: -0.48804354010396644  
sent length 40+ - Correlation: -0.8905954581263816

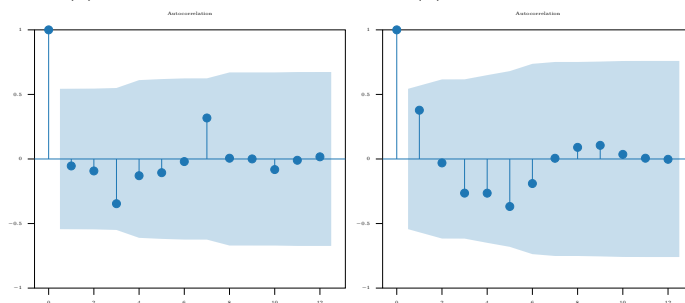
## 1.12 dependency distance entropy11

### 1.12.1 Statistics-acf



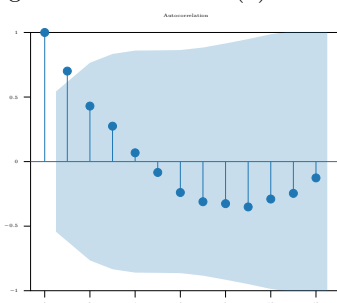
(a) sent length 02-09

(b) sent length 10-19



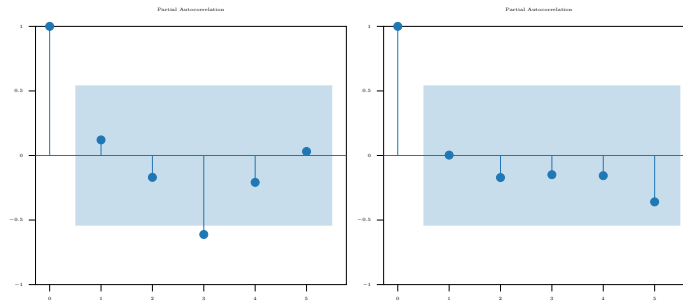
(c) sent length 20-29

(d) sent length 30-39



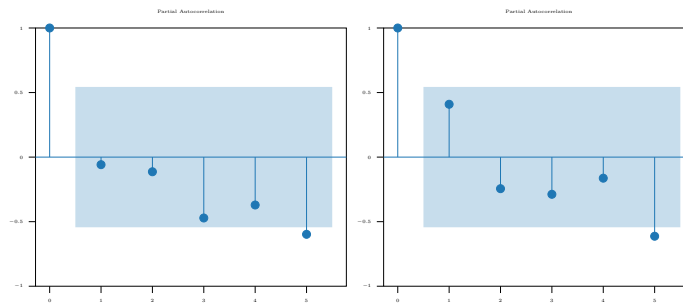
(e) sent length 40+

### 1.12.2 Statistics-pacf



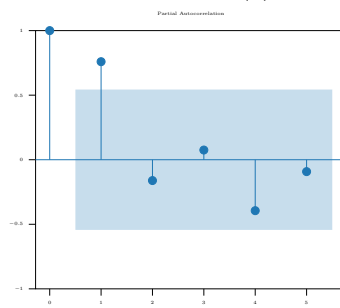
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



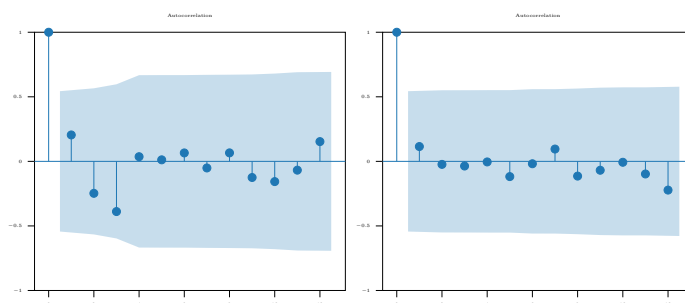
(e) sent length 40+

### **1.12.3 Statistics-cor**

sent length 02-09 - Correlation: 0.022107399162019866  
sent length 10-19 - Correlation: 0.049747708330959275  
sent length 20-29 - Correlation: -0.007669506760038882  
sent length 30-39 - Correlation: 0.14638858531946225  
sent length 40+ - Correlation: 0.8962764962347861

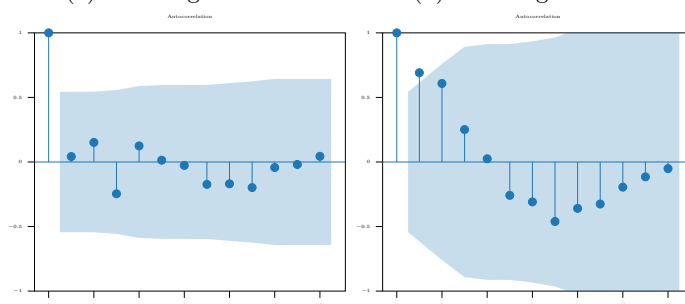
## 1.13 ratio arcs adjacent tokens<sup>12</sup>

### 1.13.1 Statistics-acf



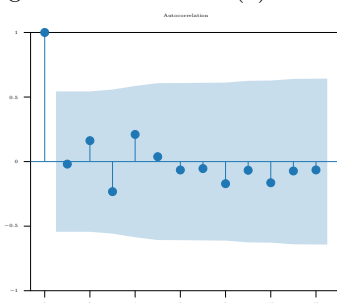
(a) sent length 02-09

(b) sent length 10-19



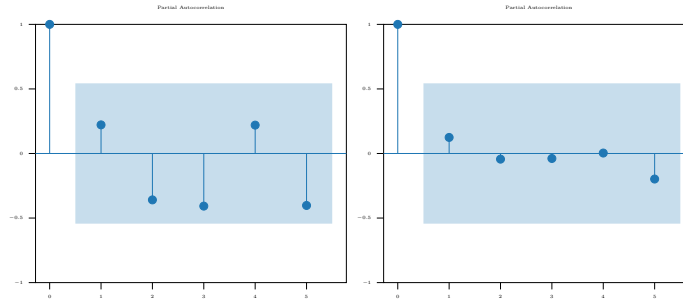
(c) sent length 20-29

(d) sent length 30-39



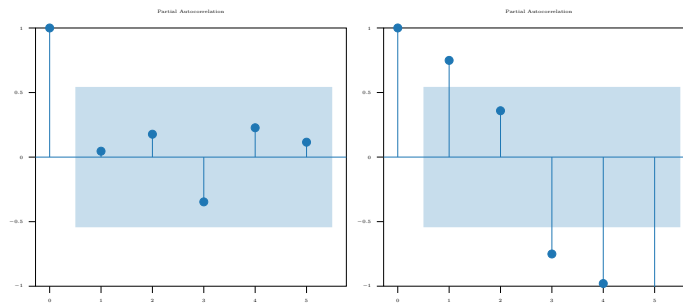
(e) sent length 40+

### 1.13.2 Statistics-pacf



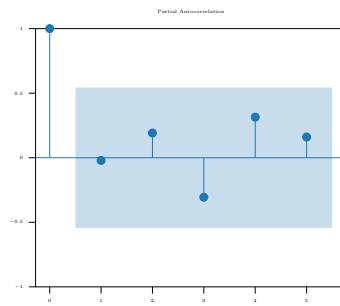
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

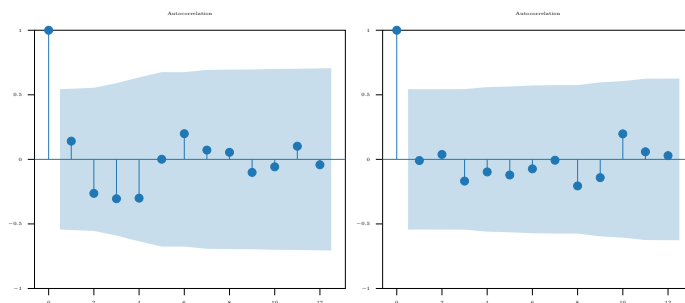


### **1.13.3 Statistics-cor**

sent length 02-09 - Correlation: -0.249455178851834  
sent length 10-19 - Correlation: 0.5583263353083857  
sent length 20-29 - Correlation: 0.44390650799508125  
sent length 30-39 - Correlation: 0.8273728022498925  
sent length 40+ - Correlation: 0.5396681460163526

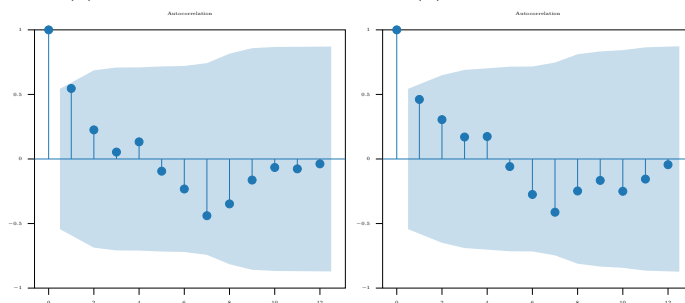
## 1.14 ratio arcs distances occ once13

### 1.14.1 Statistics-acf



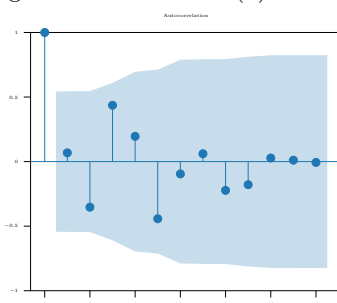
(a) sent length 02-09

(b) sent length 10-19



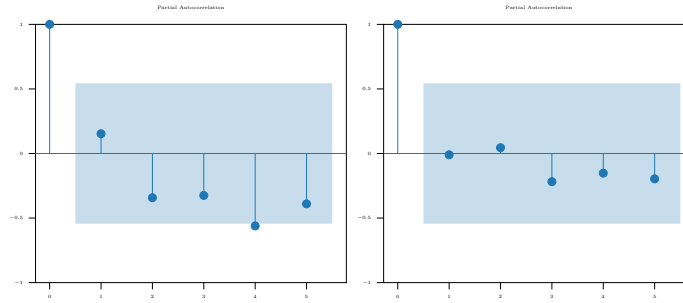
(c) sent length 20-29

(d) sent length 30-39



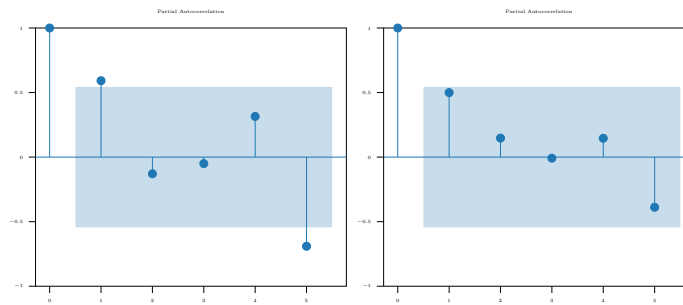
(e) sent length 40+

### 1.14.2 Statistics-pacf



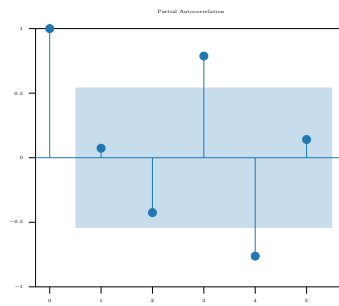
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



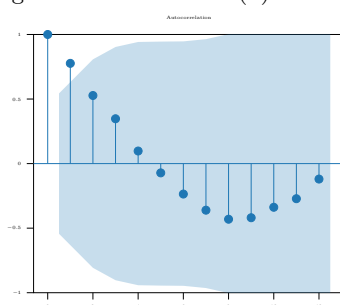
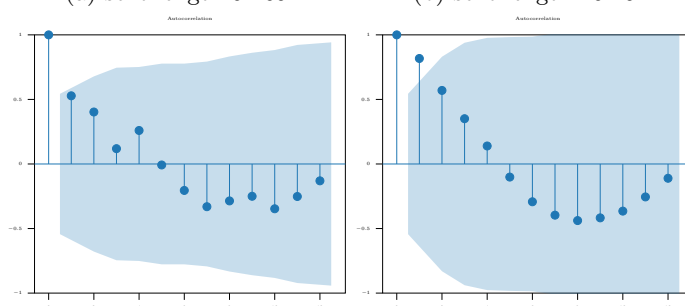
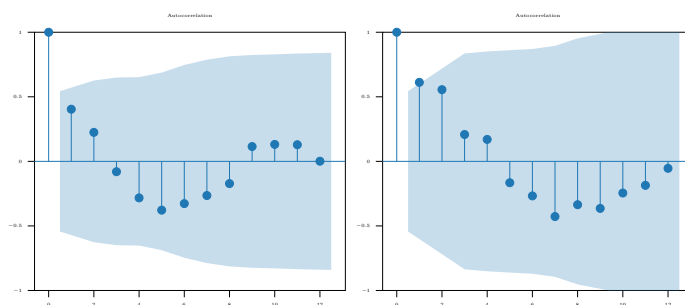
(e) sent length 40+

### **1.14.3 Statistics-cor**

sent length 02-09 - Correlation: 0.10332959581436123  
sent length 10-19 - Correlation: 0.11825539256990063  
sent length 20-29 - Correlation: -0.6832915065329896  
sent length 30-39 - Correlation: -0.7600132871986292  
sent length 40+ - Correlation: -0.415210385119701

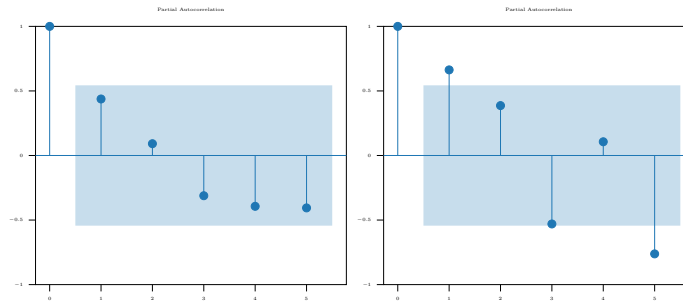
## 1.15 imbalance index14

### 1.15.1 Statistics-acf

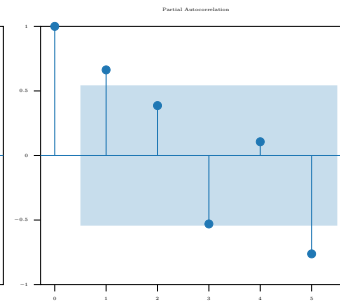


(e) sent length 40+

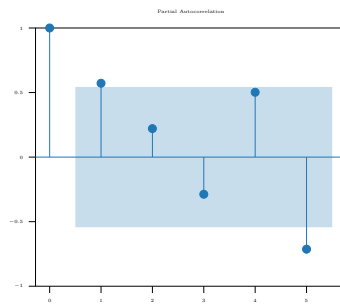
### 1.15.2 Statistics-pacf



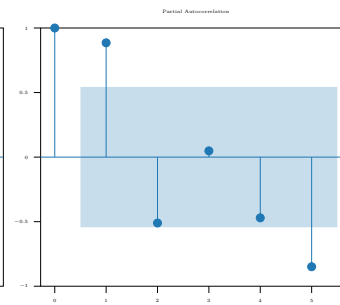
(a) sent length 02-09



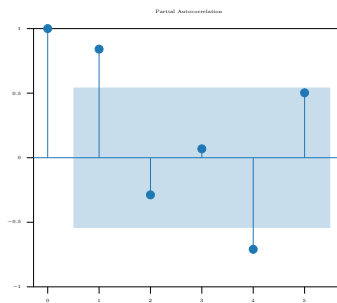
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



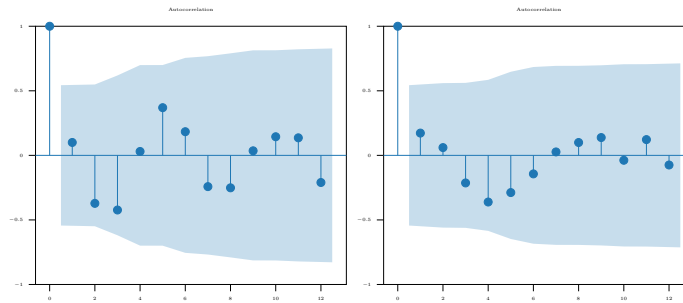
(e) sent length 40+

### **1.15.3 Statistics-cor**

sent length 02-09 - Correlation: 0.24516859724423928  
sent length 10-19 - Correlation: 0.8549766192719201  
sent length 20-29 - Correlation: 0.8737245673897833  
sent length 30-39 - Correlation: 0.9641218450504693  
sent length 40+ - Correlation: 0.9547574477830365

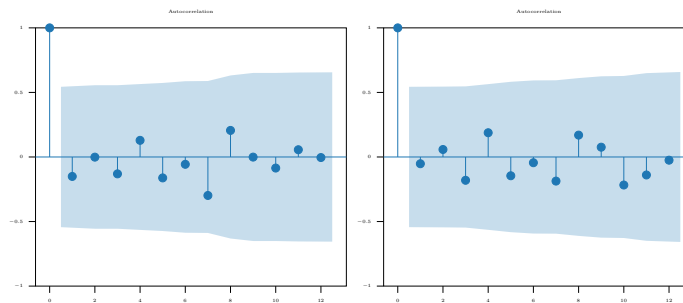
## 1.16 ratio of leafs15

### 1.16.1 Statistics-acf



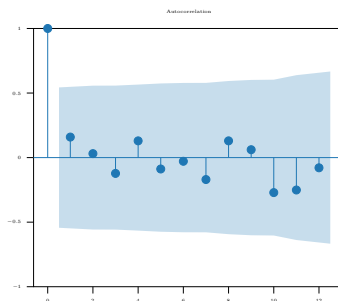
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

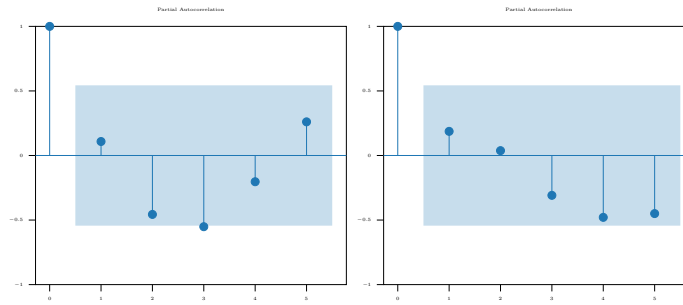
(d) sent length 30-39



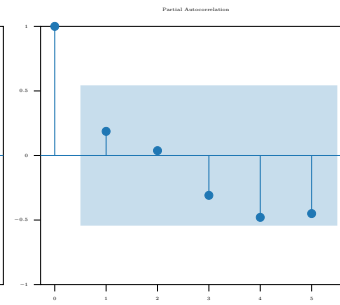
(e) sent length 40+



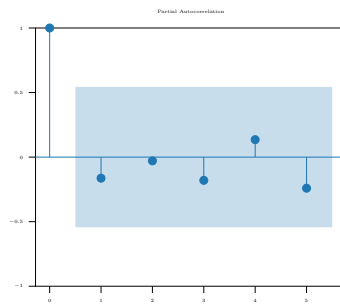
### 1.16.2 Statistics-pacf



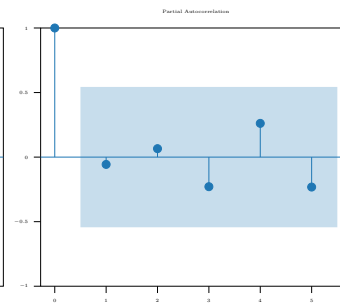
(a) sent length 02-09



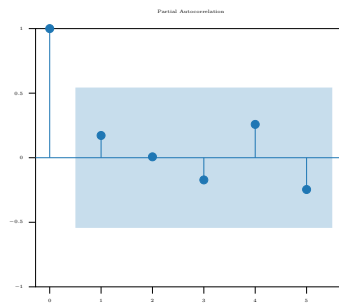
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



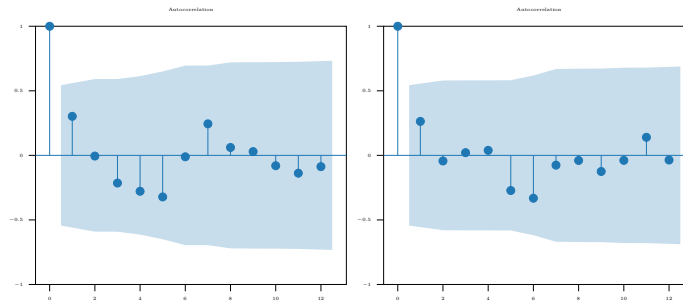
(e) sent length 40+

### 1.16.3 Statistics-cor

sent length 02-09 - Correlation: 0.2707728859258428  
sent length 10-19 - Correlation: 0.05575768142456441  
sent length 20-29 - Correlation: -0.2259281242775216  
sent length 30-39 - Correlation: -0.45701459575458614  
sent length 40+ - Correlation: -0.6017498965208469

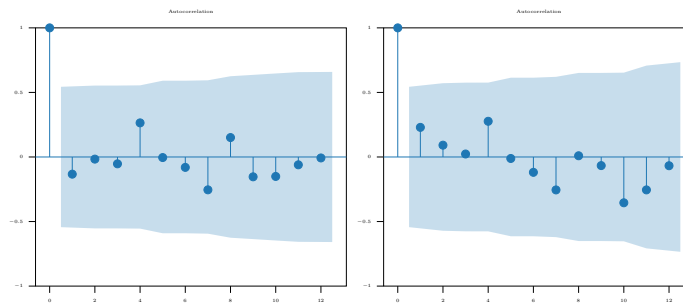
## 1.17 number of leafs16

### 1.17.1 Statistics-acf



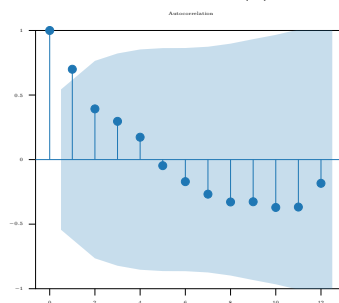
(a) sent length 02-09

(b) sent length 10-19



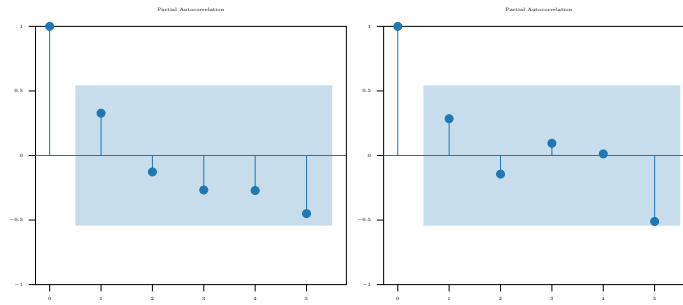
(c) sent length 20-29

(d) sent length 30-39

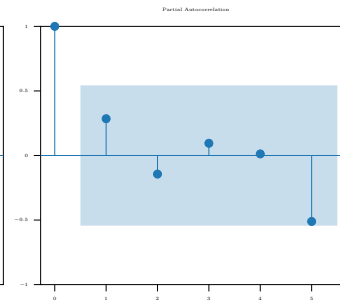


(e) sent length 40+

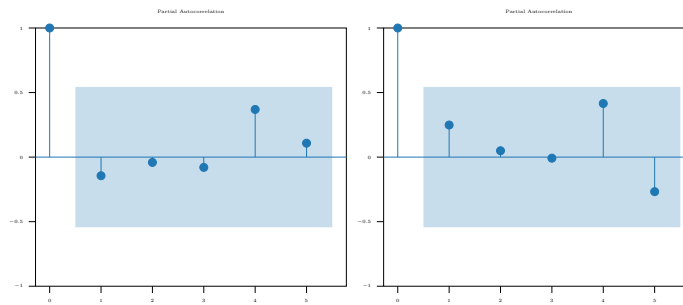
### 1.17.2 Statistics-pacf



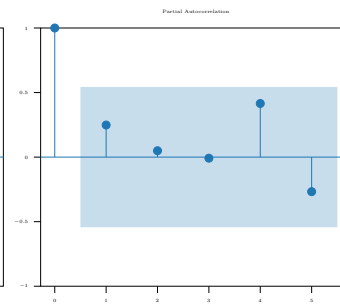
(a) sent length 02-09



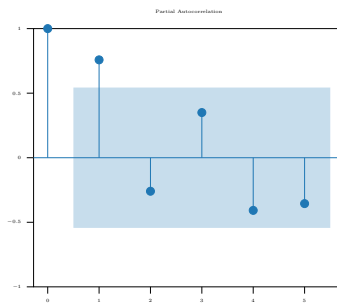
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



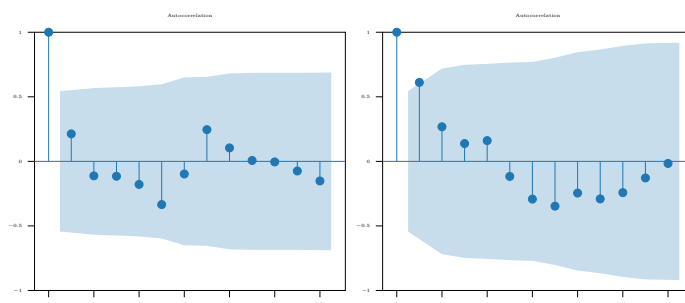
(e) sent length 40+

### 1.17.3 Statistics-cor

sent length 02-09 - Correlation: 0.42968965794888686  
sent length 10-19 - Correlation: -0.3805435009048369  
sent length 20-29 - Correlation: -0.45829868238020405  
sent length 30-39 - Correlation: -0.7137610870273059  
sent length 40+ - Correlation: -0.9612868916434766

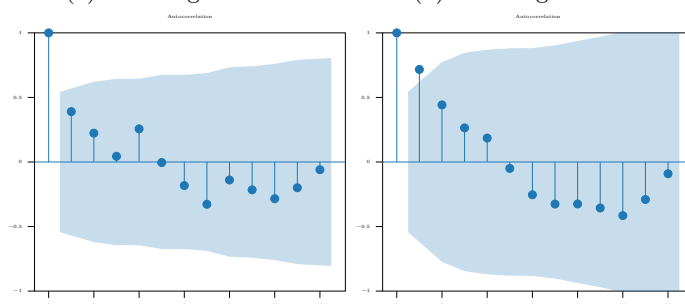
## 1.18 width of tree19

### 1.18.1 Statistics-acf



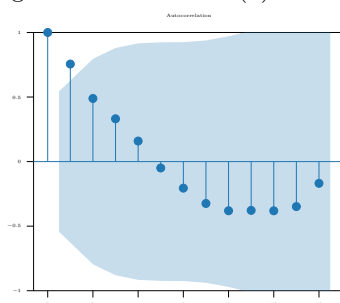
(a) sent length 02-09

(b) sent length 10-19



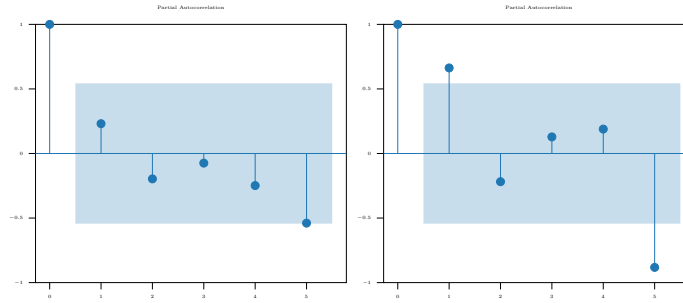
(c) sent length 20-29

(d) sent length 30-39



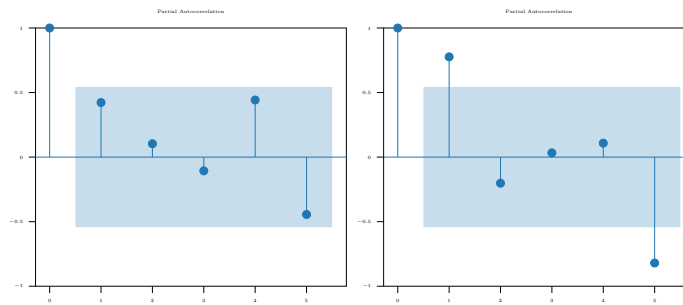
(e) sent length 40+

### 1.18.2 Statistics-pacf



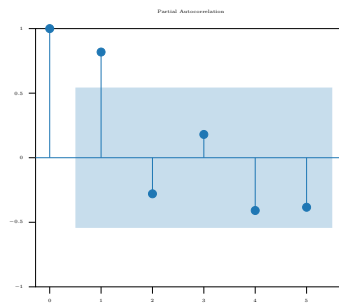
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

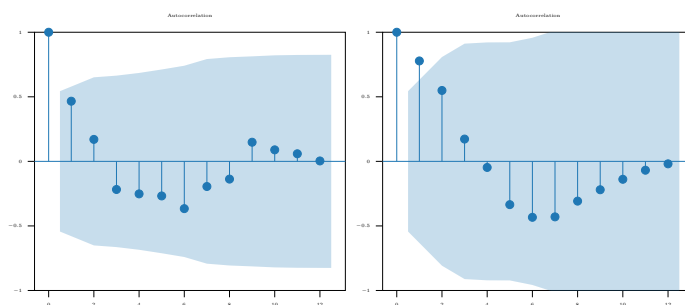
### 1.18.3 Statistics-cor

sent length 02-09 - Correlation: 0.3928679787650163  
sent length 10-19 - Correlation: -0.7640878552080534  
sent length 20-29 - Correlation: -0.7581917364340048  
sent length 30-39 - Correlation: -0.9317849088154612  
sent length 40+ - Correlation: -0.9825533968326782



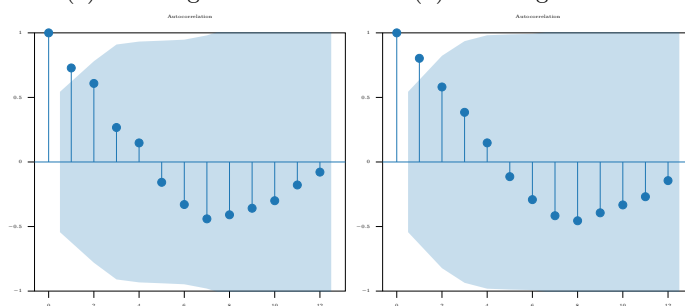
## 1.19 lowest lv max width20

### 1.19.1 Statistics-acf



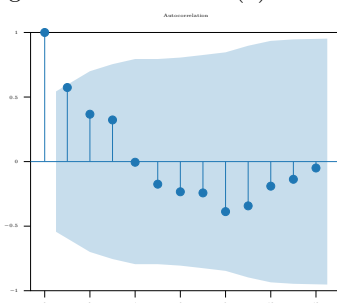
(a) sent length 02-09

(b) sent length 10-19



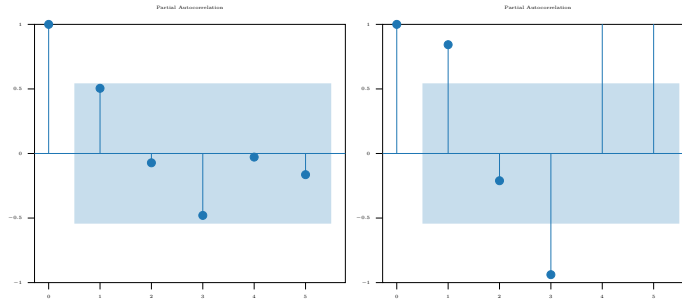
(c) sent length 20-29

(d) sent length 30-39



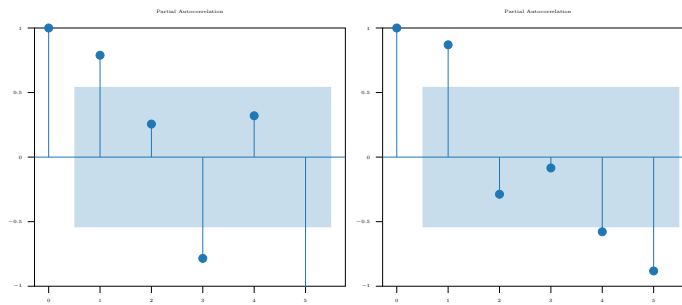
(e) sent length 40+

### 1.19.2 Statistics-pacf



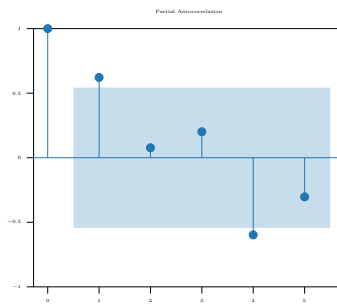
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



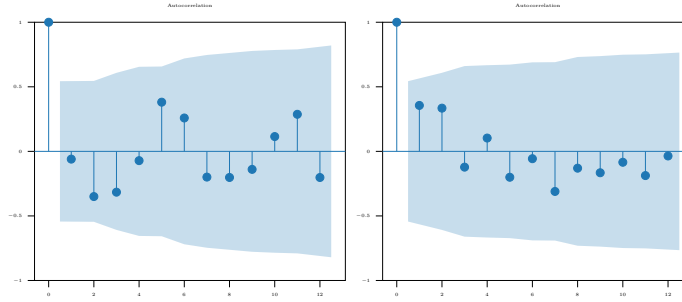
(e) sent length 40+

### **1.19.3 Statistics-cor**

sent length 02-09 - Correlation: 0.28258833294714975  
sent length 10-19 - Correlation: 0.7548844290531865  
sent length 20-29 - Correlation: 0.9002499420701064  
sent length 30-39 - Correlation: 0.9732892236192802  
sent length 40+ - Correlation: 0.7953466281820868

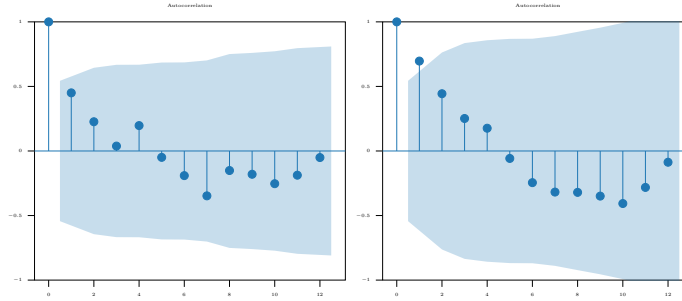
## 1.20 ratio vertices belonging latter level21

### 1.20.1 Statistics-acf



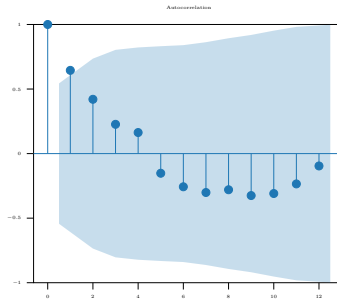
(a) sent length 02-09

(b) sent length 10-19



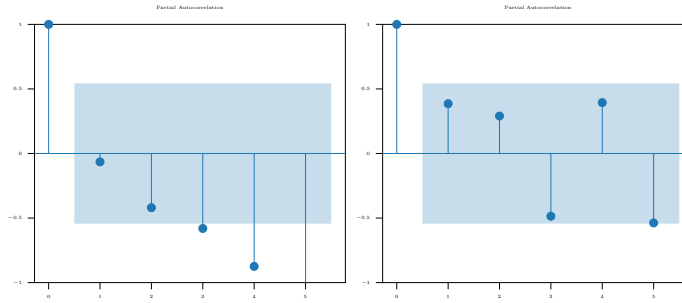
(c) sent length 20-29

(d) sent length 30-39



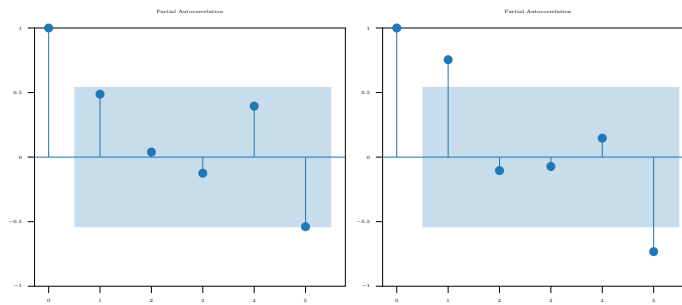
(e) sent length 40+

## 1.20.2 Statistics-pacf



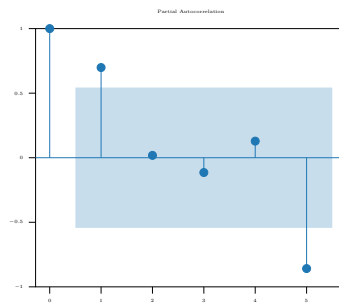
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



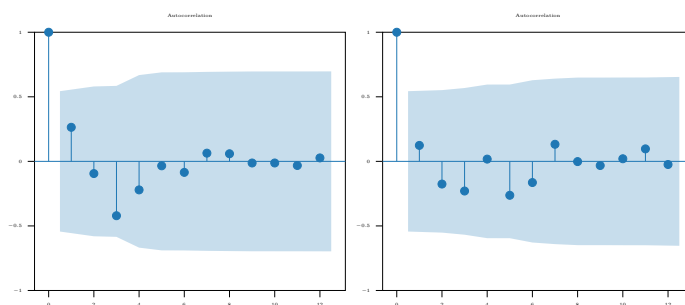
(e) sent length 40+

### **1.20.3 Statistics-cor**

sent length 02-09 - Correlation: 0.139934071304257  
sent length 10-19 - Correlation: -0.6549255084025343  
sent length 20-29 - Correlation: -0.7410219596731161  
sent length 30-39 - Correlation: -0.9214831293654447  
sent length 40+ - Correlation: -0.8713750477901742

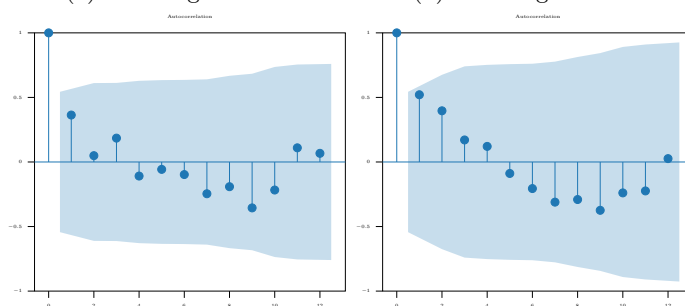
## 1.21 Hirsch index22

### 1.21.1 Statistics-acf



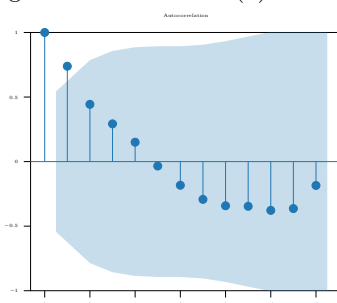
(a) sent length 02-09

(b) sent length 10-19



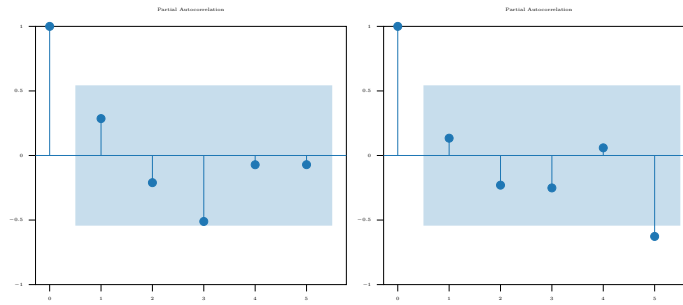
(c) sent length 20-29

(d) sent length 30-39

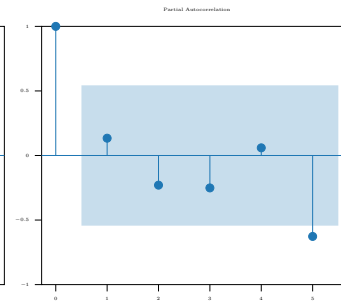


(e) sent length 40+

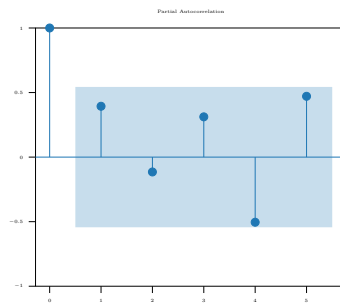
### 1.21.2 Statistics-pacf



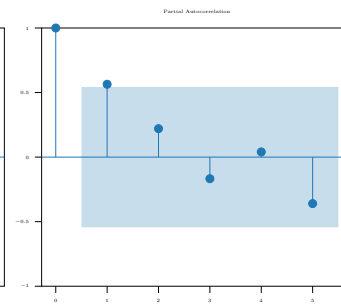
(a) sent length 02-09



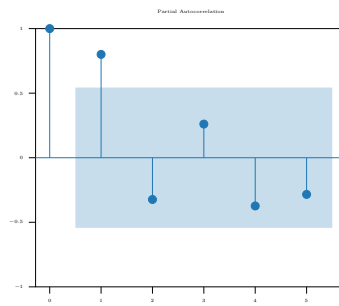
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



(e) sent length 40+

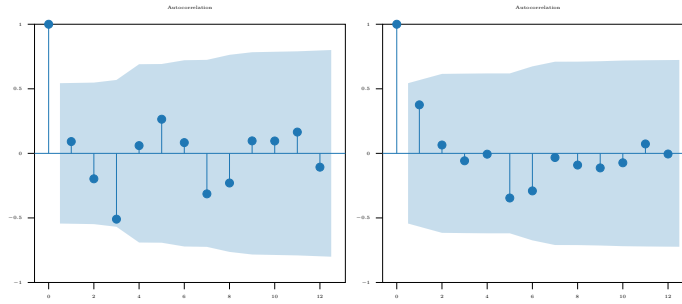


### 1.21.3 Statistics-cor

sent length 02-09 - Correlation: -0.1928266390135608  
sent length 10-19 - Correlation: 0.06801263005258942  
sent length 20-29 - Correlation: -0.5565424410574887  
sent length 30-39 - Correlation: -0.7967856452189167  
sent length 40+ - Correlation: -0.9738435929814658

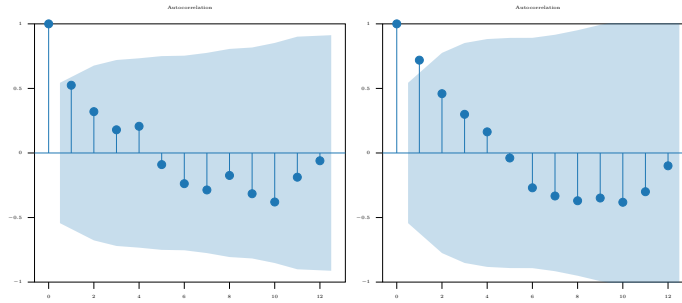
## 1.22 ratio vertices contributing h index23

### 1.22.1 Statistics-acf



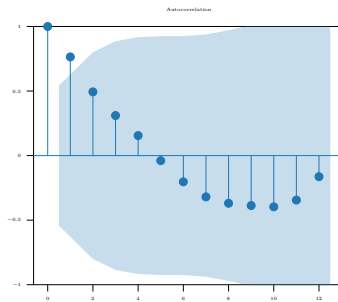
(a) sent length 02-09

(b) sent length 10-19



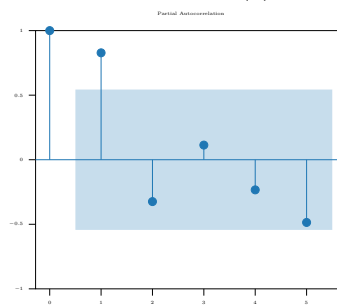
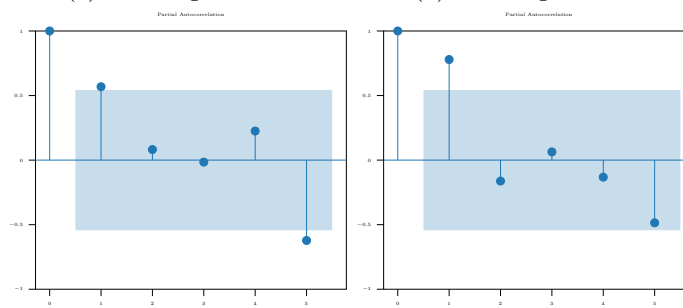
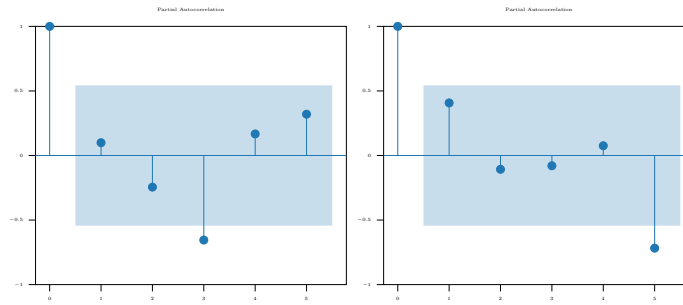
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

### 1.22.2 Statistics-pacf

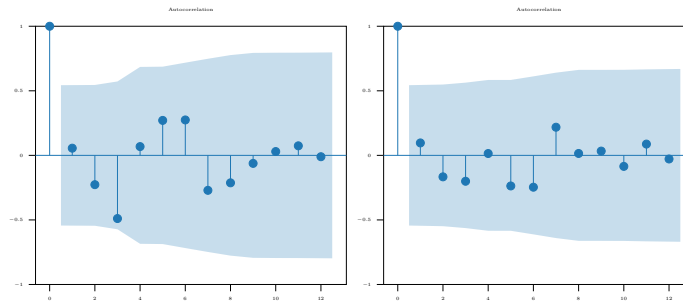


### **1.22.3 Statistics-cor**

sent length 02-09 - Correlation: -0.12375684996116366  
sent length 10-19 - Correlation: -0.43712600473467517  
sent length 20-29 - Correlation: -0.825889633692269  
sent length 30-39 - Correlation: -0.937127150644748  
sent length 40+ - Correlation: -0.9829478348603736

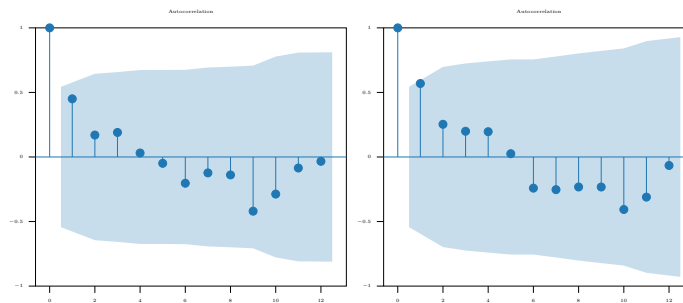
## 1.23 relative h index24

### 1.23.1 Statistics-acf



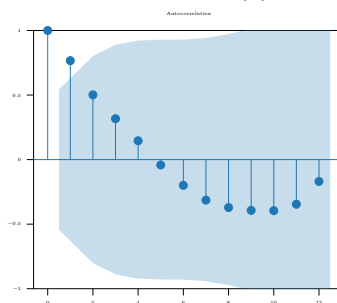
(a) sent length 02-09

(b) sent length 10-19



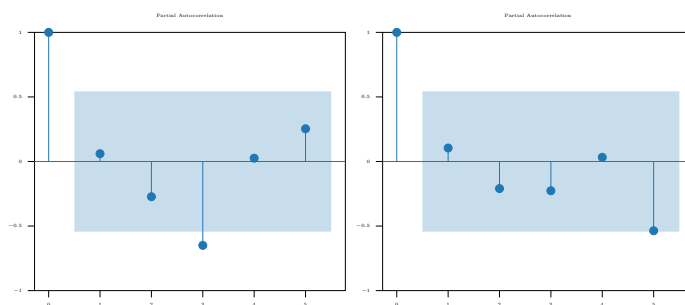
(c) sent length 20-29

(d) sent length 30-39



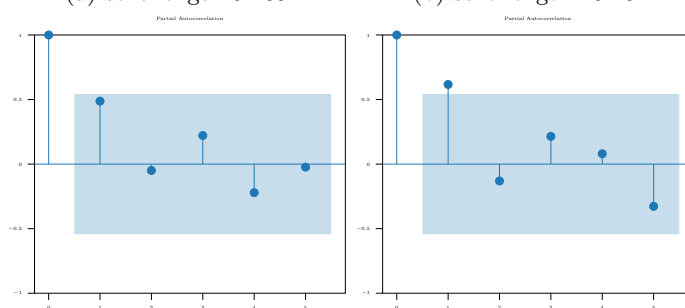
(e) sent length 40+

### 1.23.2 Statistics-pacf



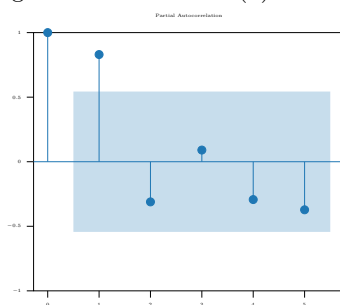
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

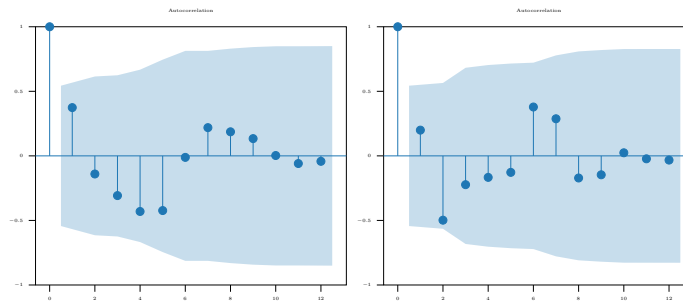
### **1.23.3 Statistics-cor**

sent length 02-09 - Correlation: -0.22281279073022933  
sent length 10-19 - Correlation: -0.1597025731071033  
sent length 20-29 - Correlation: -0.7341258994720775  
sent length 30-39 - Correlation: -0.8626008666756476  
sent length 40+ - Correlation: -0.9862424795010879

## 2 doc-Based:

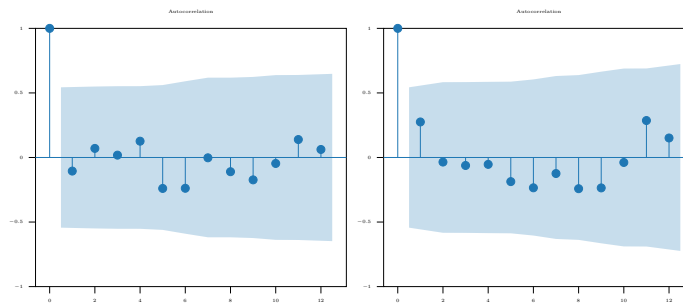
### 2.1 n verbs0

#### 2.1.1 Statistics-acf



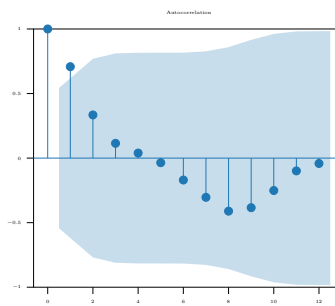
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

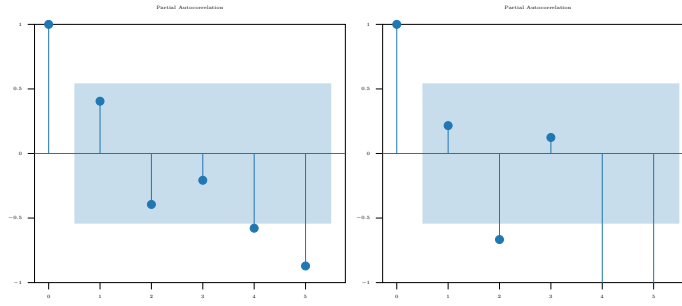
(d) sent length 30-39



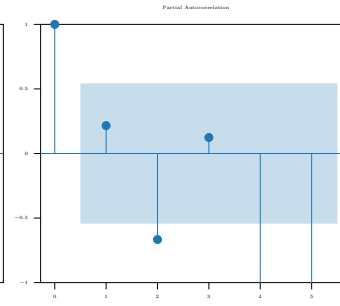
(e) sent length 40+



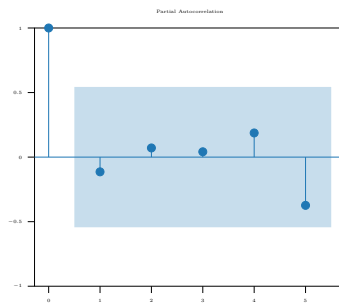
## 2.1.2 Statistics-pacf



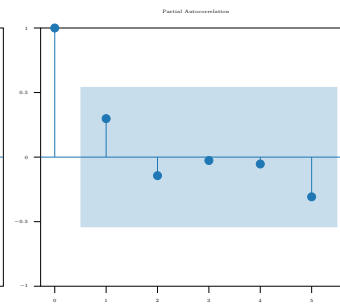
(a) sent length 02-09



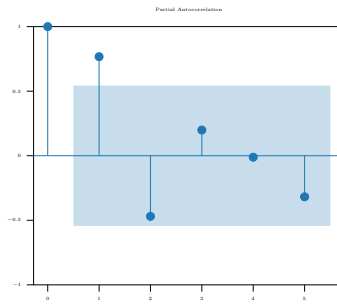
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



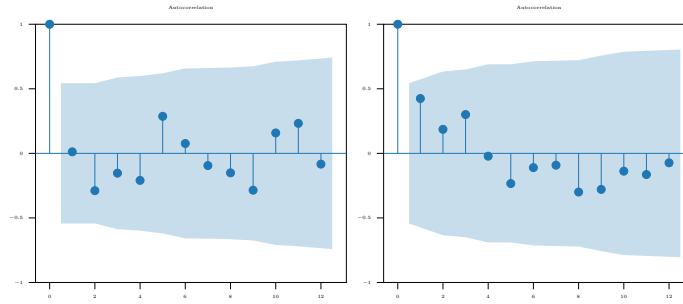
(e) sent length 40+

### **2.1.3 Statistics-cor**

sent length 02-09 - Correlation: 0.044847313011520895  
sent length 10-19 - Correlation: 0.23278330520096824  
sent length 20-29 - Correlation: 0.26003012779030343  
sent length 30-39 - Correlation: 0.11750270615557175  
sent length 40+ - Correlation: -0.8074462886068743

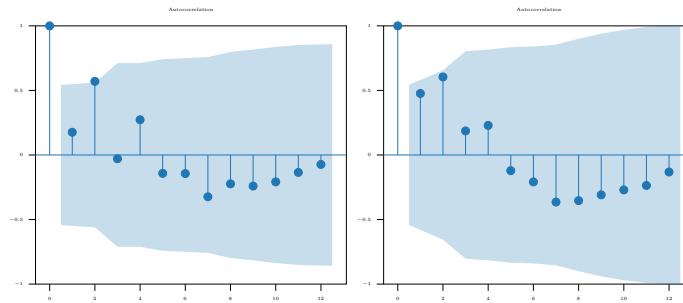
## 2.2 complexity ratio1

### 2.2.1 Statistics-acf



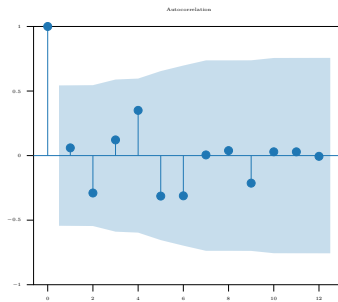
(a) sent length 02-09

(b) sent length 10-19



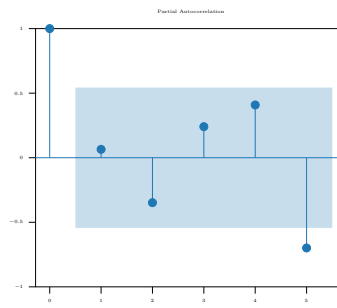
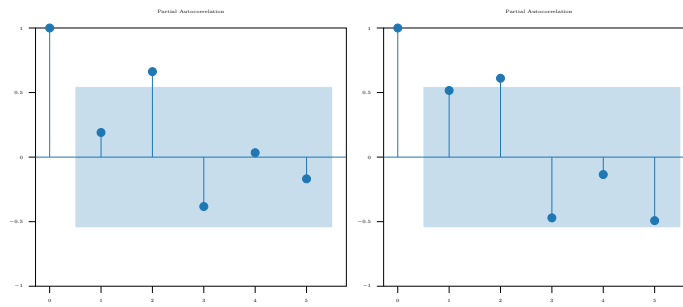
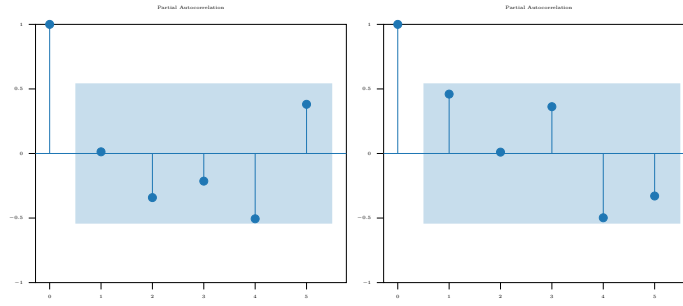
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

## 2.2.2 Statistics-pacf

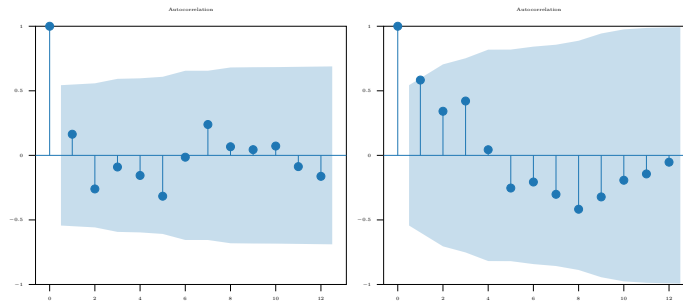


### **2.2.3 Statistics-cor**

sent length 02-09 - Correlation: 0.08839526075965308  
sent length 10-19 - Correlation: -0.7290123810334737  
sent length 20-29 - Correlation: -0.7395597650264042  
sent length 30-39 - Correlation: -0.8847657709565625  
sent length 40+ - Correlation: -0.350580180049475

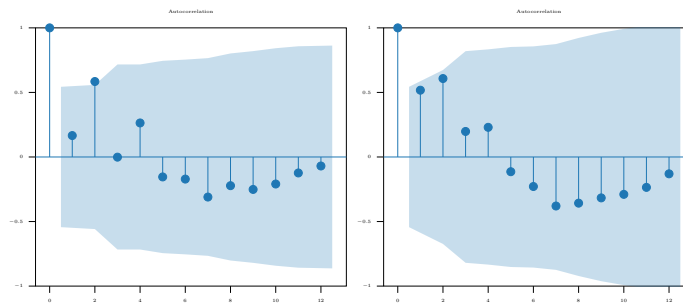
## 2.3 absolute complexity2

### 2.3.1 Statistics-acf



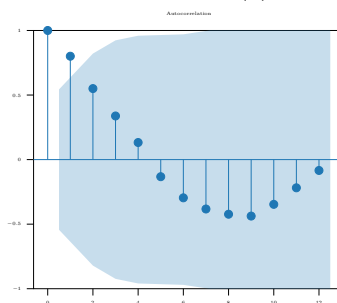
(a) sent length 02-09

(b) sent length 10-19



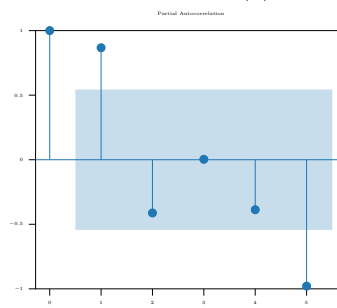
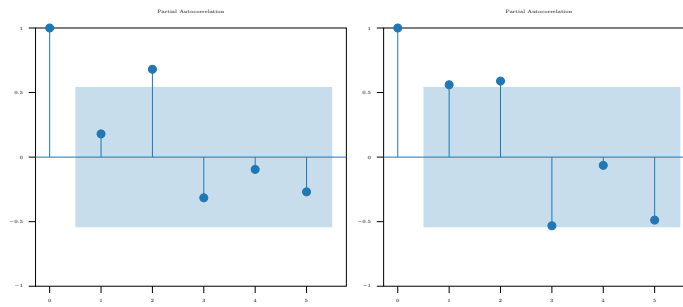
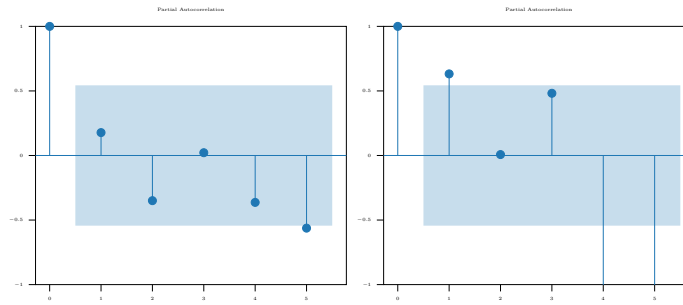
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

### 2.3.2 Statistics-pacf



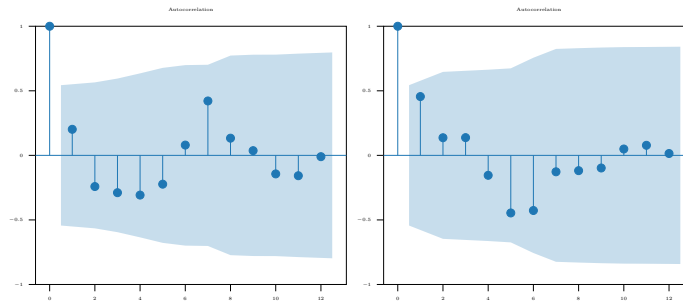
### **2.3.3 Statistics-cor**

sent length 02-09 - Correlation: 0.3293131394329022  
sent length 10-19 - Correlation: -0.8090334988303975  
sent length 20-29 - Correlation: -0.7378047192376628  
sent length 30-39 - Correlation: -0.8958163151648069  
sent length 40+ - Correlation: -0.9384444933053268



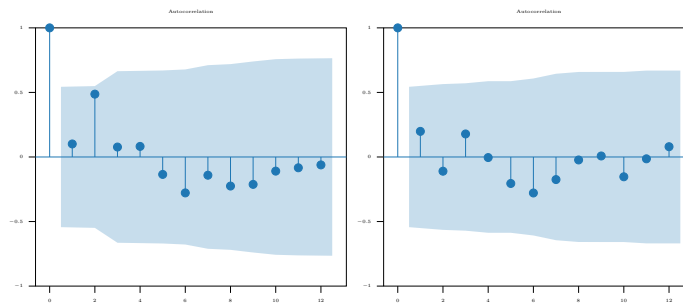
## 2.4 order of tree3

### 2.4.1 Statistics-acf



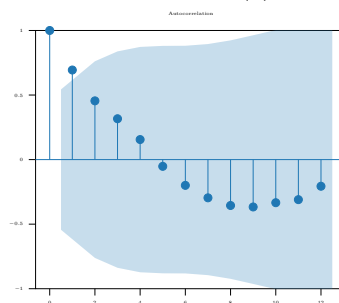
(a) sent length 02-09

(b) sent length 10-19



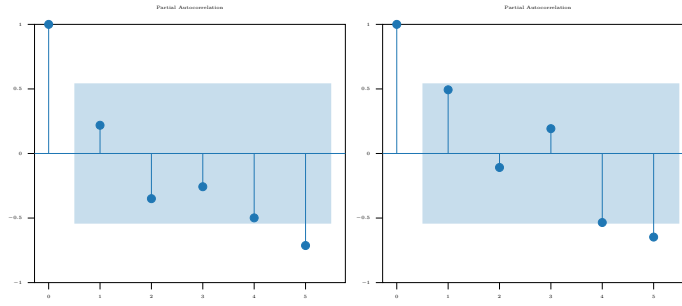
(c) sent length 20-29

(d) sent length 30-39



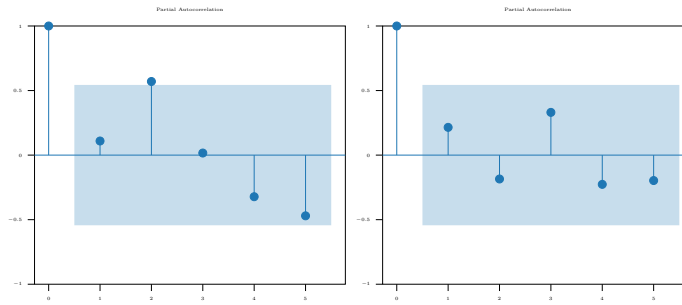
(e) sent length 40+

## 2.4.2 Statistics-pacf



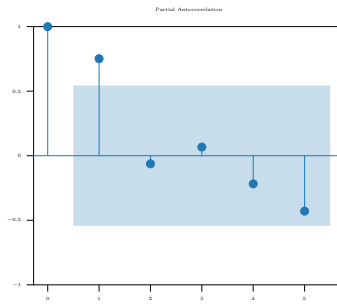
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



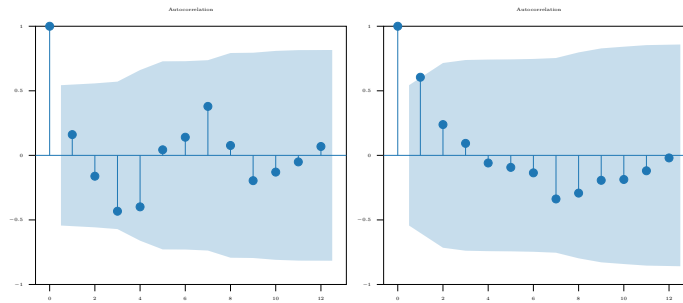
(e) sent length 40+

### **2.4.3 Statistics-cor**

sent length 02-09 - Correlation: 0.27493379111024907  
sent length 10-19 - Correlation: -0.41975352143665334  
sent length 20-29 - Correlation: -0.6537591641937284  
sent length 30-39 - Correlation: -0.3983204847532816  
sent length 40+ - Correlation: -0.9614791367588799

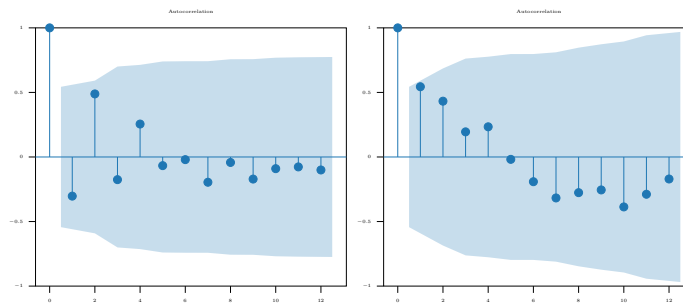
## 2.5 dependency index4

### 2.5.1 Statistics-acf



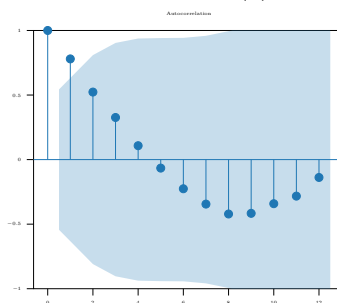
(a) sent length 02-09

(b) sent length 10-19



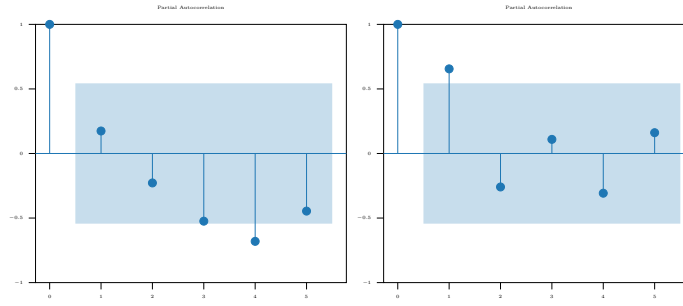
(c) sent length 20-29

(d) sent length 30-39



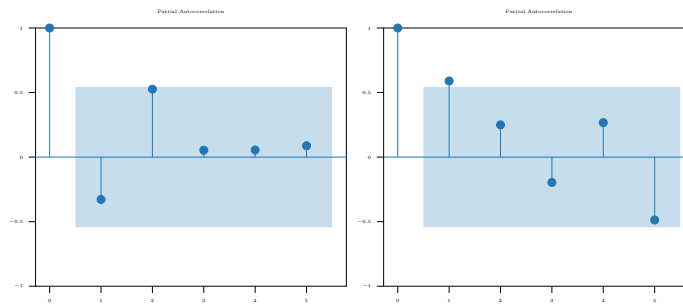
(e) sent length 40+

## 2.5.2 Statistics-pacf



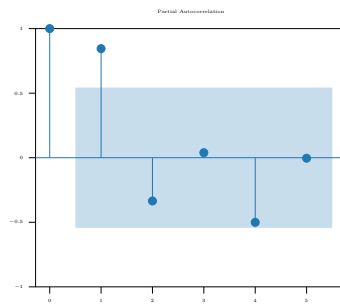
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



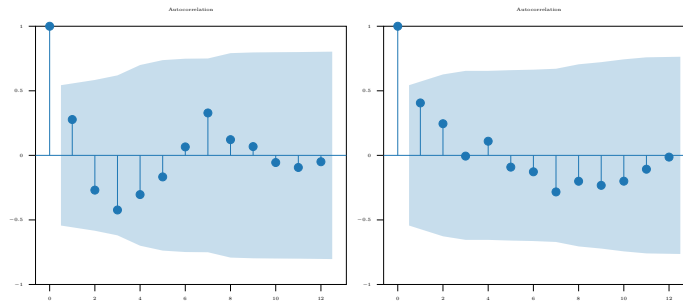
(e) sent length 40+

### **2.5.3 Statistics-cor**

sent length 02-09 - Correlation: 0.18458319087896666  
sent length 10-19 - Correlation: 0.7133630162461622  
sent length 20-29 - Correlation: 0.5609473967569258  
sent length 30-39 - Correlation: 0.9128465343724796  
sent length 40+ - Correlation: 0.9611435159584131

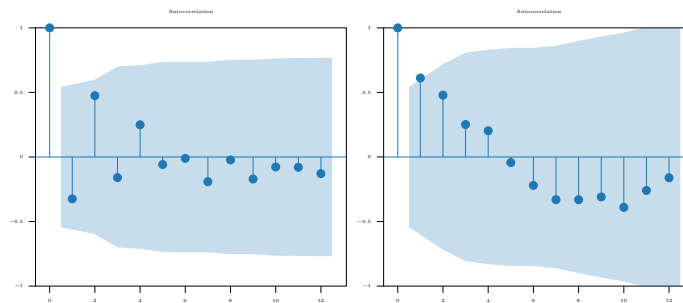
## 2.6 stratum of tree5

### 2.6.1 Statistics-acf



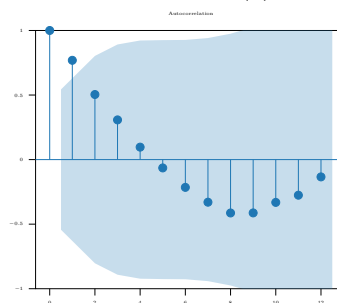
(a) sent length 02-09

(b) sent length 10-19



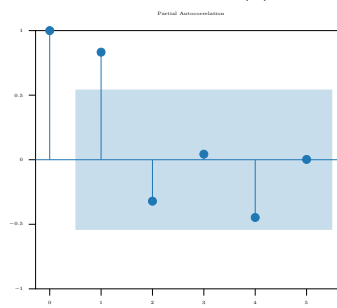
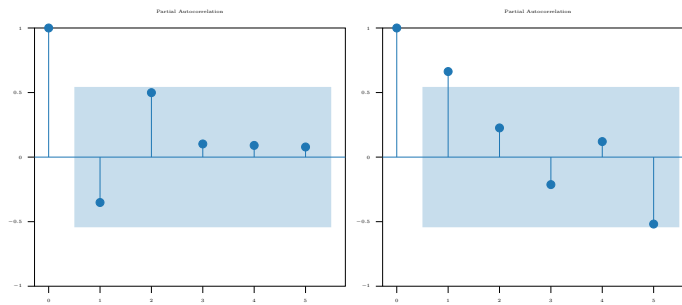
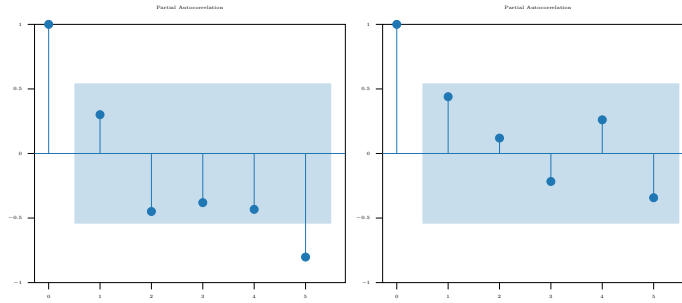
(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

## 2.6.2 Statistics-pacf



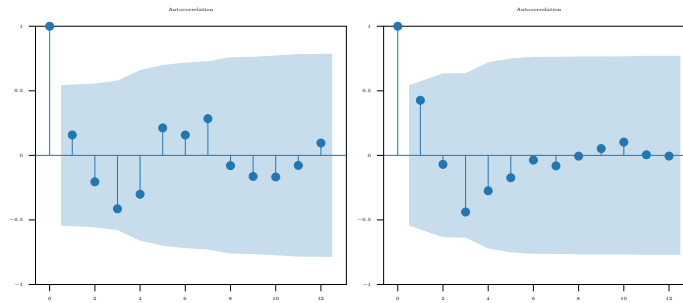


### **2.6.3 Statistics-cor**

sent length 02-09 - Correlation: -0.1797982661562464  
sent length 10-19 - Correlation: 0.6801264327946887  
sent length 20-29 - Correlation: 0.566111714994413  
sent length 30-39 - Correlation: 0.9288480594263397  
sent length 40+ - Correlation: 0.9496754796883258

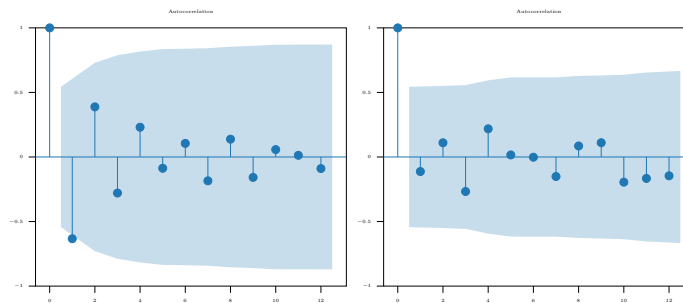
## 2.7 depth of tree6

### 2.7.1 Statistics-acf



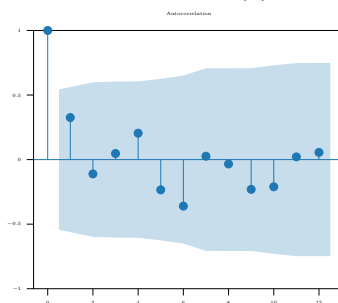
(a) sent length 02-09

(b) sent length 10-19



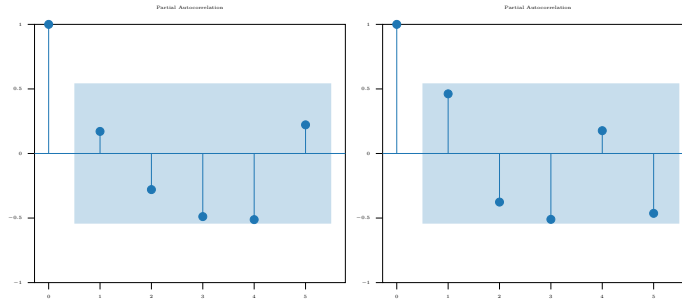
(c) sent length 20-29

(d) sent length 30-39

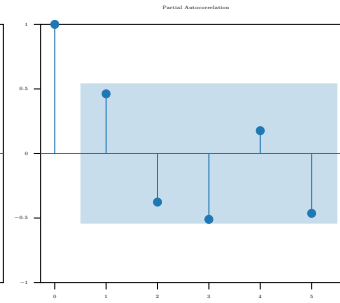


(e) sent length 40+

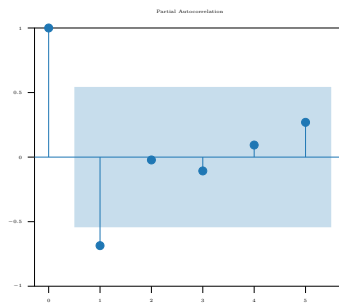
## 2.7.2 Statistics-pacf



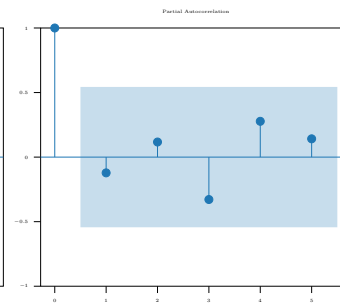
(a) sent length 02-09



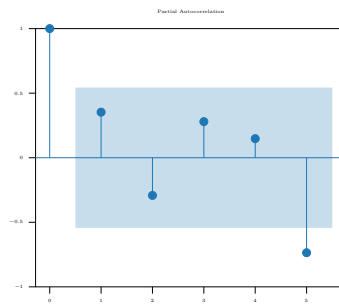
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



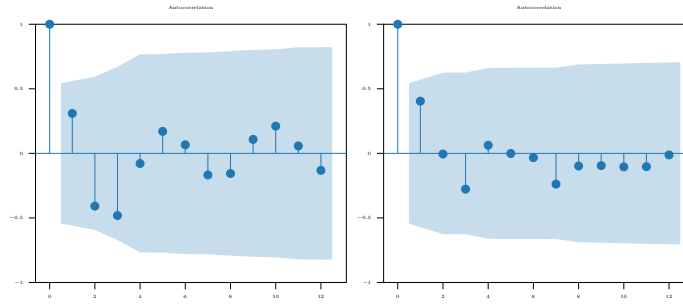
(e) sent length 40+

### **2.7.3 Statistics-cor**

sent length 02-09 - Correlation: 0.2870800685607261  
sent length 10-19 - Correlation: 0.14740243928960514  
sent length 20-29 - Correlation: 0.28632466525489303  
sent length 30-39 - Correlation: 0.5337945680004812  
sent length 40+ - Correlation: 0.49872314826600944

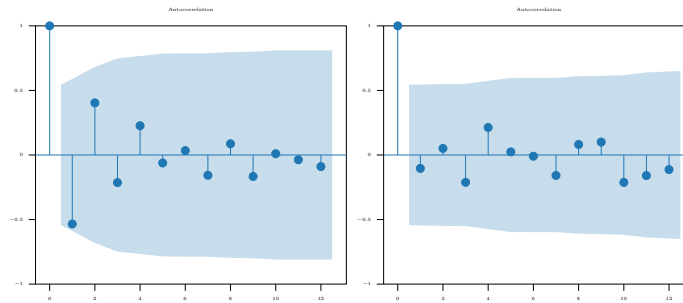
## 2.8 ratio vertices on lp from rt7

### 2.8.1 Statistics-acf



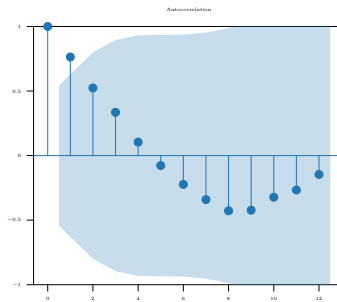
(a) sent length 02-09

(b) sent length 10-19



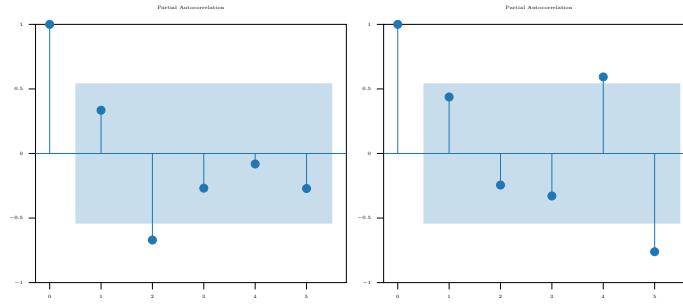
(c) sent length 20-29

(d) sent length 30-39



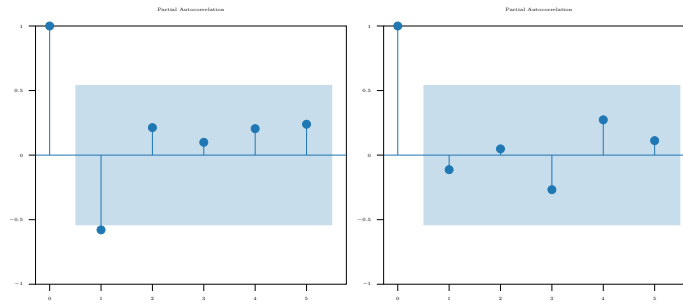
(e) sent length 40+

## 2.8.2 Statistics-pac



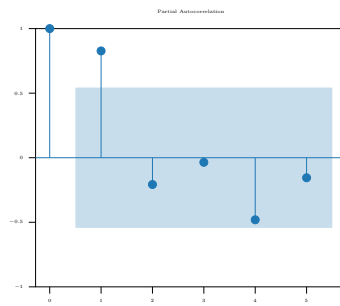
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



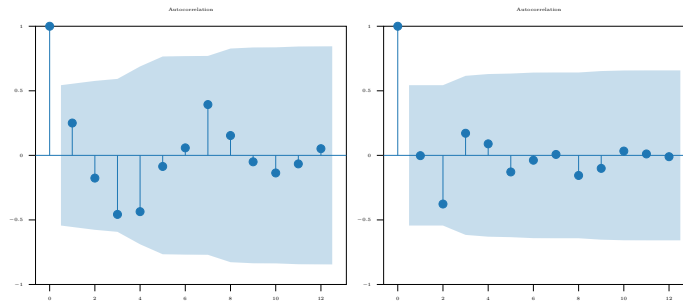
(e) sent length 40+

### **2.8.3 Statistics-cor**

sent length 02-09 - Correlation: -0.051222501455107414  
sent length 10-19 - Correlation: 0.5378169521738724  
sent length 20-29 - Correlation: 0.4032595558866367  
sent length 30-39 - Correlation: 0.5211853825018685  
sent length 40+ - Correlation: 0.9556913216104356

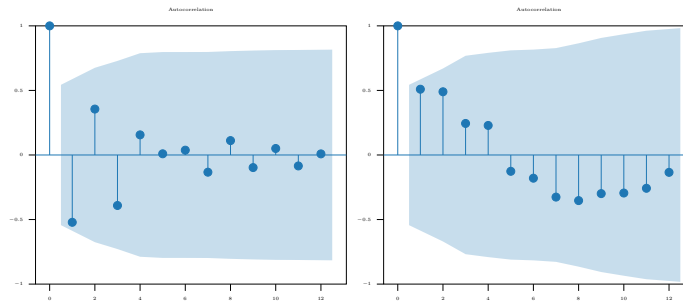
## 2.9 leaf distance entropy8

### 2.9.1 Statistics-acf



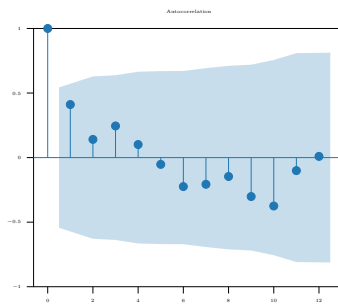
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

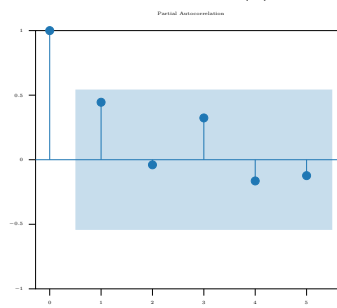
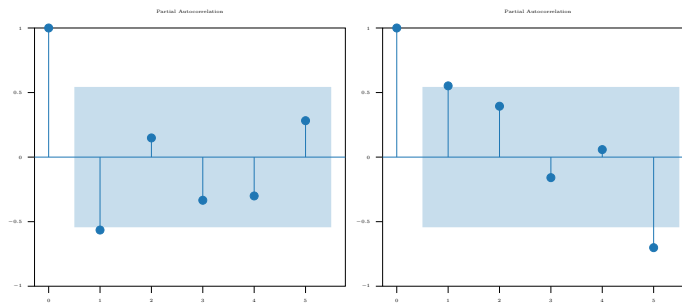
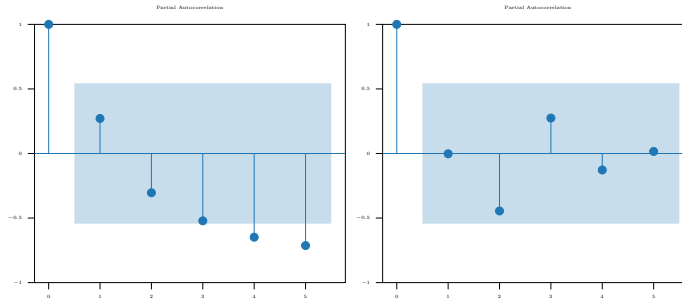
(d) sent length 30-39



(e) sent length 40+



## 2.9.2 Statistics-pacf

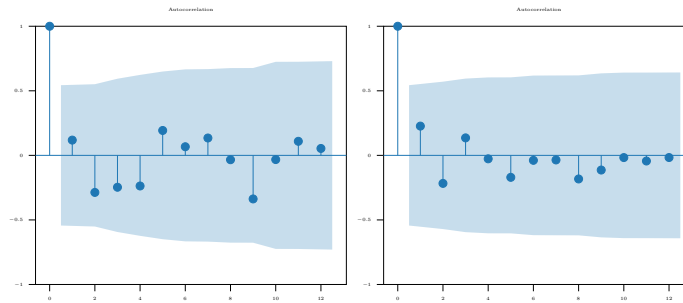


### **2.9.3 Statistics-cor**

sent length 02-09 - Correlation: 0.06190467502961758  
sent length 10-19 - Correlation: 0.3118751595663771  
sent length 20-29 - Correlation: 0.23269089418663497  
sent length 30-39 - Correlation: 0.8900625503659924  
sent length 40+ - Correlation: 0.729501732975414

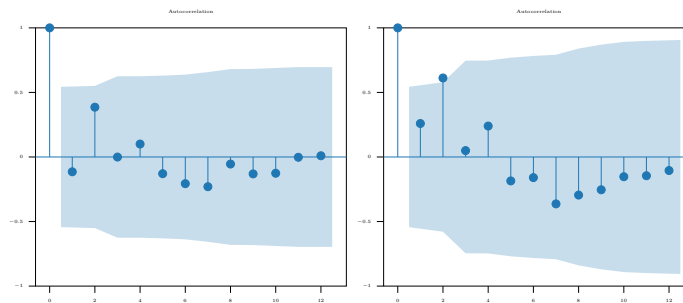
## 2.10 ratio of leafs at d1 to rt9

### 2.10.1 Statistics-acf



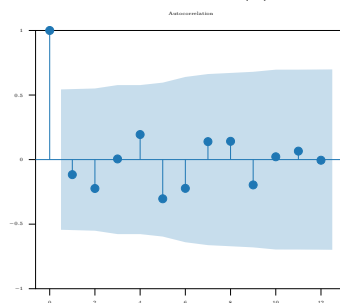
(a) sent length 02-09

(b) sent length 10-19



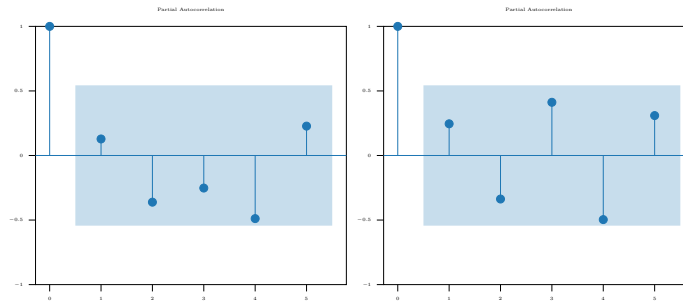
(c) sent length 20-29

(d) sent length 30-39

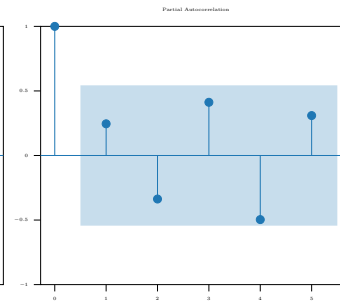


(e) sent length 40+

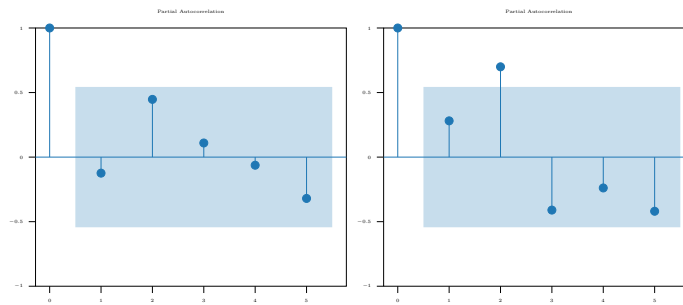
## 2.10.2 Statistics-pacf



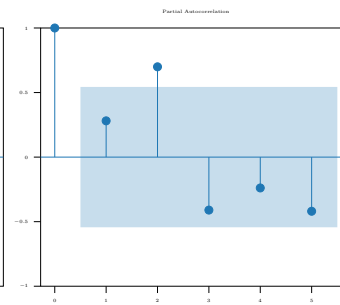
(a) sent length 02-09



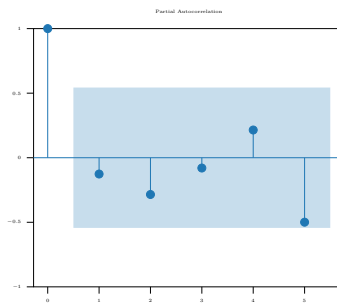
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



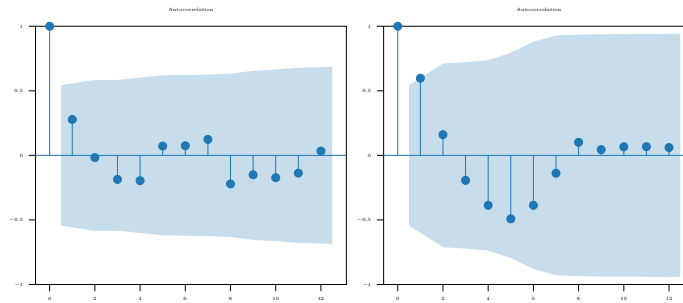
(e) sent length 40+

### **2.10.3 Statistics-cor**

sent length 02-09 - Correlation: 0.16718931990739197  
sent length 10-19 - Correlation: -0.45422023899255853  
sent length 20-29 - Correlation: -0.49476840926901267  
sent length 30-39 - Correlation: -0.7725181307251088  
sent length 40+ - Correlation: -0.14941243443001007

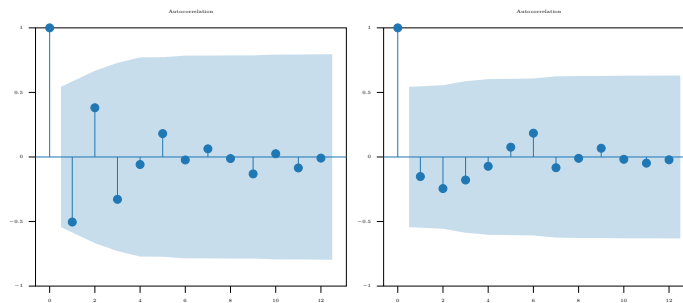
## 2.11 mean dependency distance10

### 2.11.1 Statistics-acf



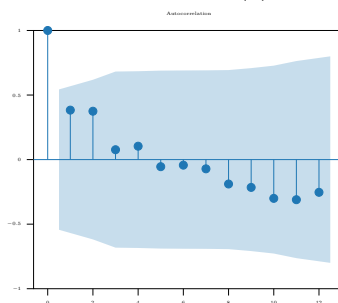
(a) sent length 02-09

(b) sent length 10-19



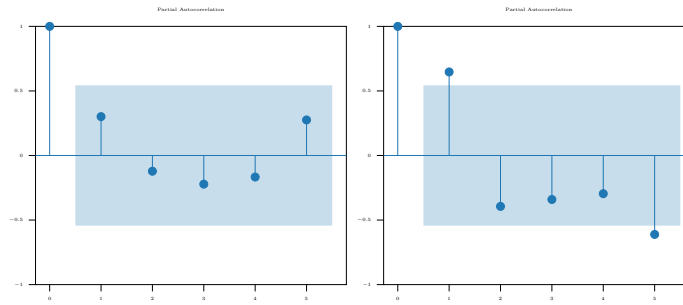
(c) sent length 20-29

(d) sent length 30-39

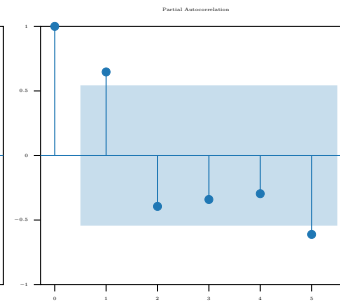


(e) sent length 40+

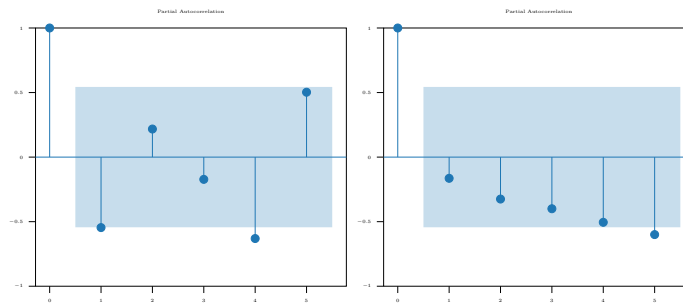
## 2.11.2 Statistics-pacf



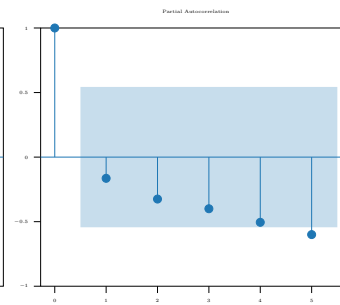
(a) sent length 02-09



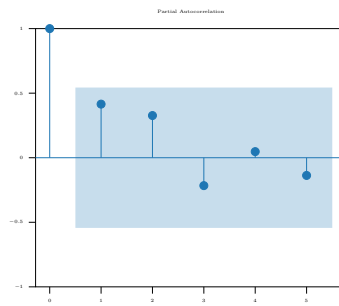
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



(e) sent length 40+

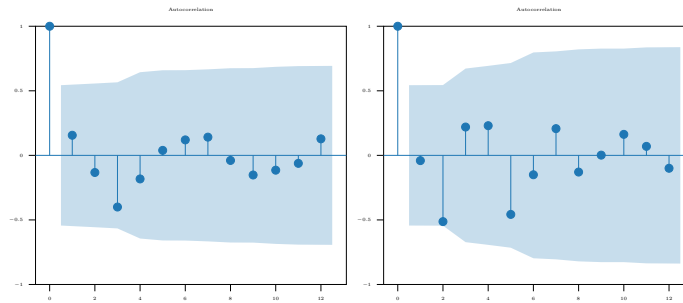
### **2.11.3 Statistics-cor**

sent length 02-09 - Correlation: 0.5214083879386497  
sent length 10-19 - Correlation: 0.18357510978399666  
sent length 20-29 - Correlation: -0.3013550793273804  
sent length 30-39 - Correlation: -0.17139300178709535  
sent length 40+ - Correlation: -0.8638967441172818



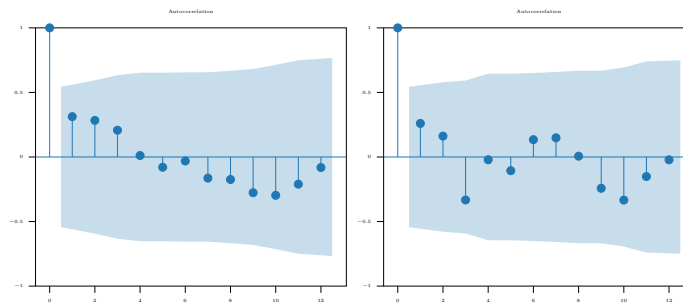
## 2.12 dependency distance entropy11

### 2.12.1 Statistics-acf



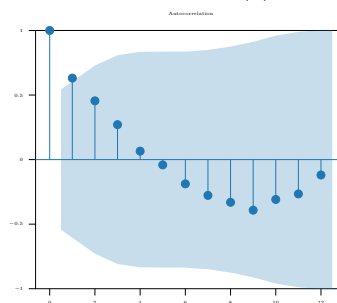
(a) sent length 02-09

(b) sent length 10-19



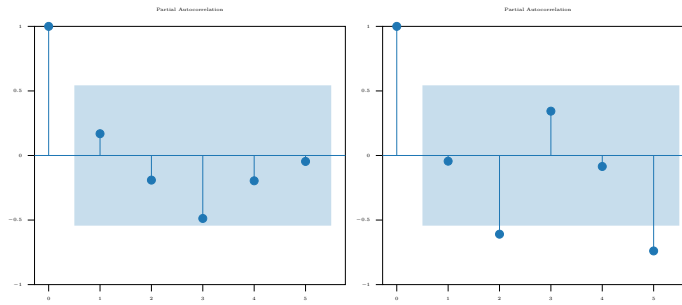
(c) sent length 20-29

(d) sent length 30-39

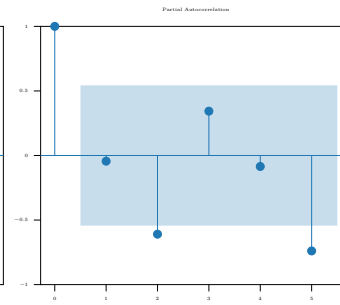


(e) sent length 40+

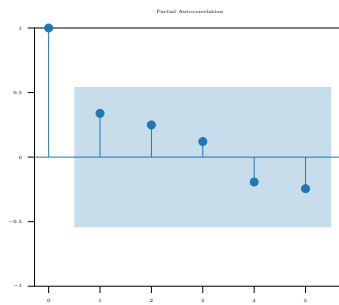
## 2.12.2 Statistics-pacf



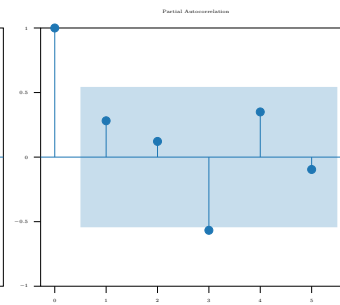
(a) sent length 02-09



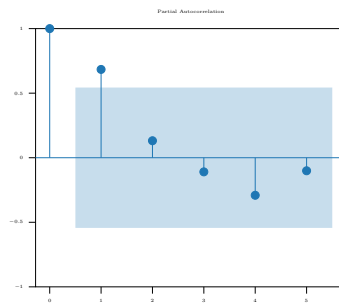
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



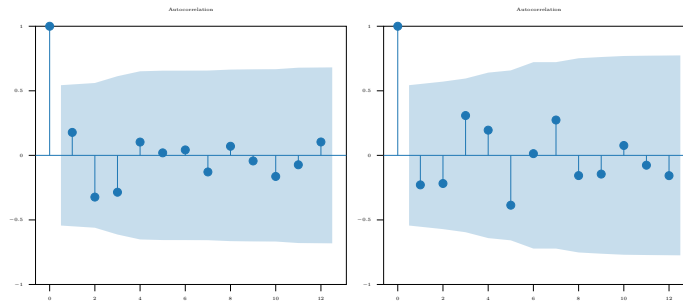
(e) sent length 40+

### **2.12.3 Statistics-cor**

sent length 02-09 - Correlation: 0.2351394094201894  
sent length 10-19 - Correlation: -0.07256331926140672  
sent length 20-29 - Correlation: 0.770761665723039  
sent length 30-39 - Correlation: 0.6071814561738925  
sent length 40+ - Correlation: 0.9034737479599743

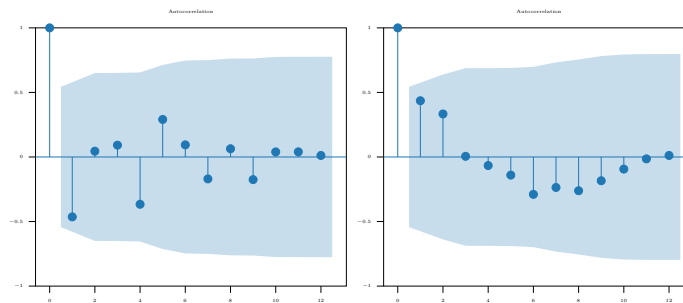
## 2.13 ratio arcs adjacent tokens<sup>12</sup>

### 2.13.1 Statistics-acf



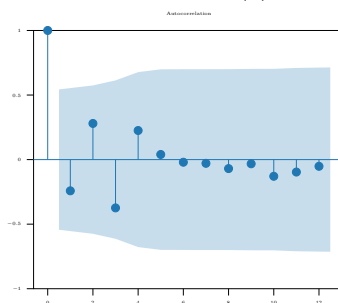
(a) sent length 02-09

(b) sent length 10-19



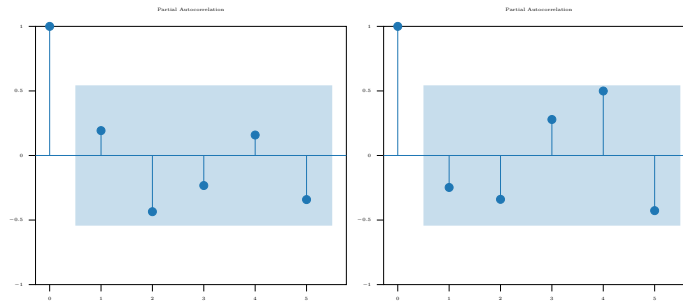
(c) sent length 20-29

(d) sent length 30-39



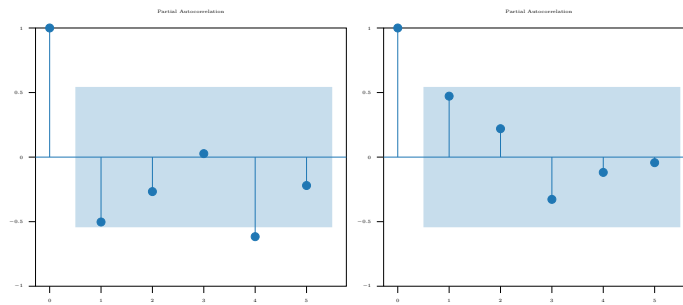
(e) sent length 40+

### 2.13.2 Statistics-pacf



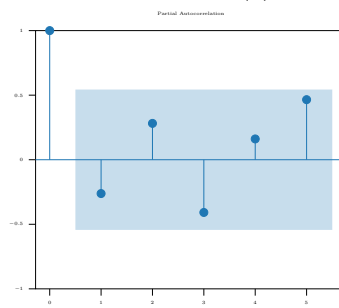
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



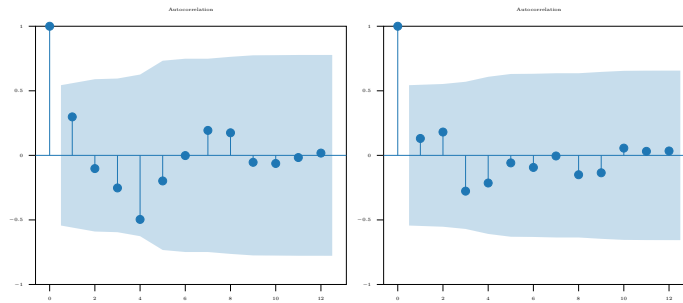
(e) sent length 40+

### **2.13.3 Statistics-cor**

sent length 02-09 - Correlation: -0.2923368309574839  
sent length 10-19 - Correlation: 0.45042032196527115  
sent length 20-29 - Correlation: 0.1214656918074352  
sent length 30-39 - Correlation: 0.6013592959638479  
sent length 40+ - Correlation: 0.4640638138006528

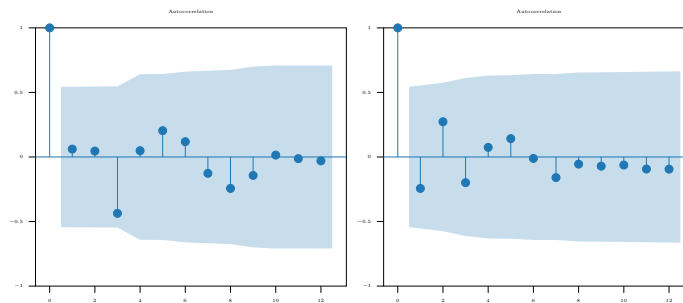
## 2.14 ratio arcs distances occ once13

### 2.14.1 Statistics-acf



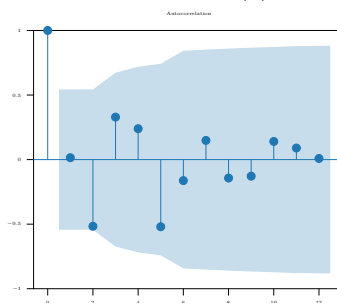
(a) sent length 02-09

(b) sent length 10-19



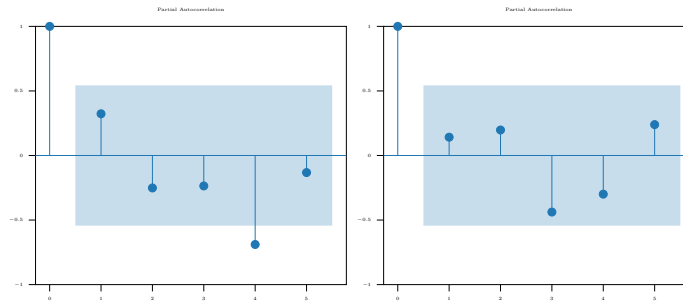
(c) sent length 20-29

(d) sent length 30-39

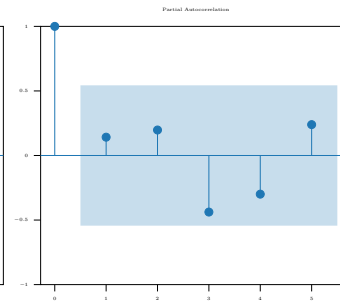


(e) sent length 40+

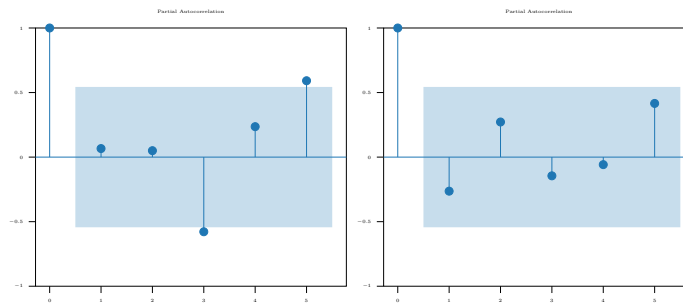
## 2.14.2 Statistics-pacf



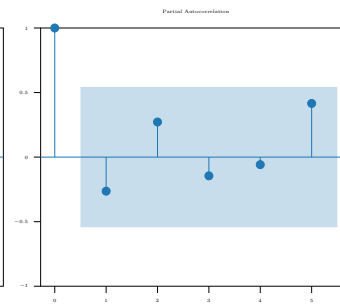
(a) sent length 02-09



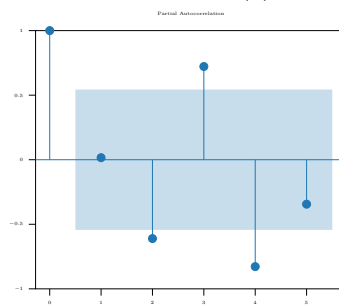
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



(e) sent length 40+

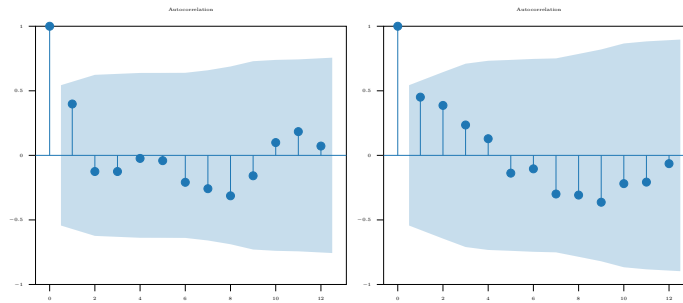


### **2.14.3 Statistics-cor**

sent length 02-09 - Correlation: 0.16250856718511805  
sent length 10-19 - Correlation: 0.2999643001623734  
sent length 20-29 - Correlation: -0.4149060033505559  
sent length 30-39 - Correlation: -0.49616878166016026  
sent length 40+ - Correlation: -0.03481916951004605

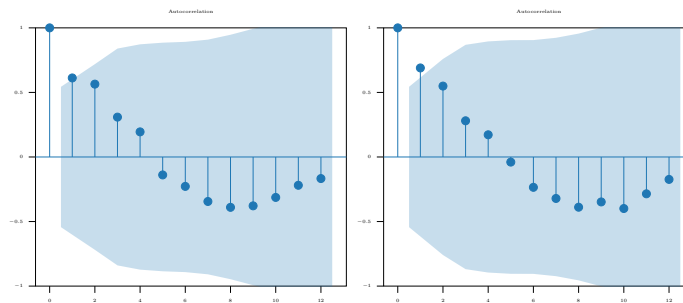
## 2.15 imbalance index14

### 2.15.1 Statistics-acf



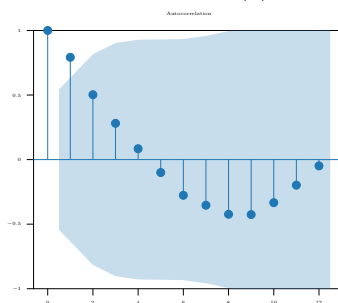
(a) sent length 02-09

(b) sent length 10-19



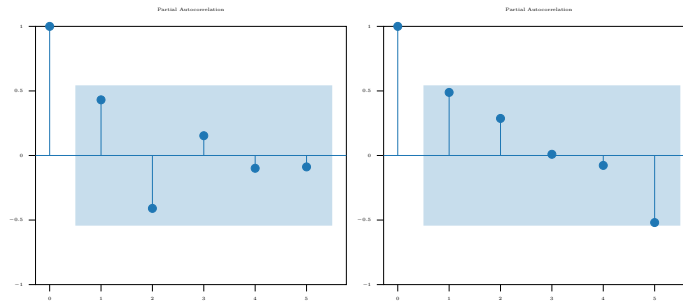
(c) sent length 20-29

(d) sent length 30-39

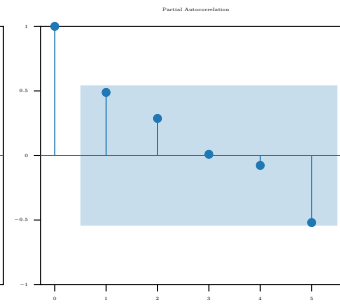


(e) sent length 40+

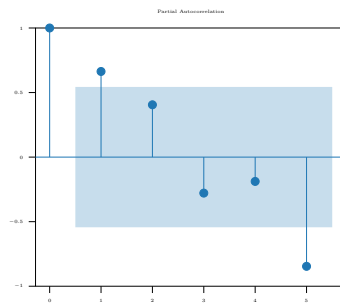
## 2.15.2 Statistics-pacf



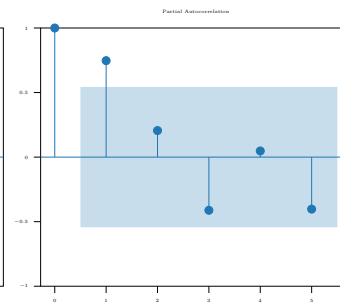
(a) sent length 02-09



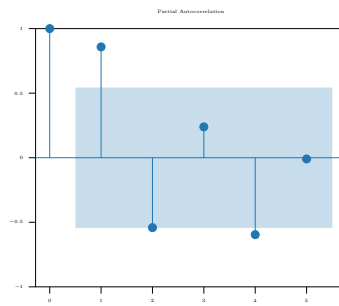
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



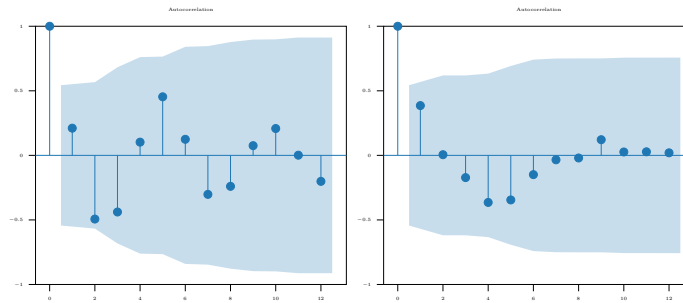
(e) sent length 40+

### **2.15.3 Statistics-cor**

sent length 02-09 - Correlation: 0.2684071681229256  
sent length 10-19 - Correlation: 0.8152585055957858  
sent length 20-29 - Correlation: 0.9297679538234772  
sent length 30-39 - Correlation: 0.965209219375448  
sent length 40+ - Correlation: 0.9049131523173327

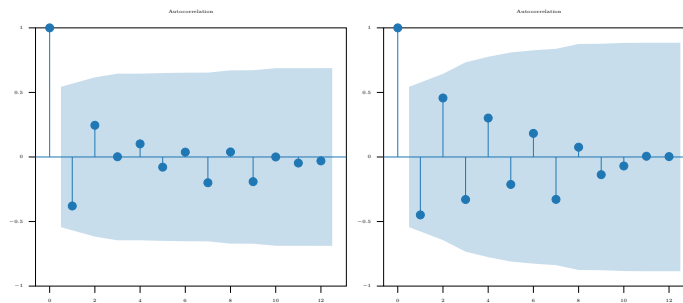
## 2.16 ratio of leafs15

### 2.16.1 Statistics-acf



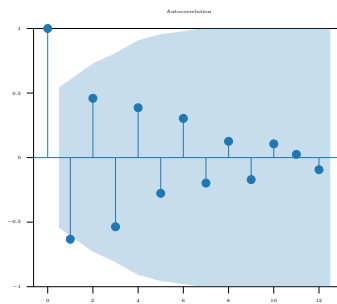
(a) sent length 02-09

(b) sent length 10-19



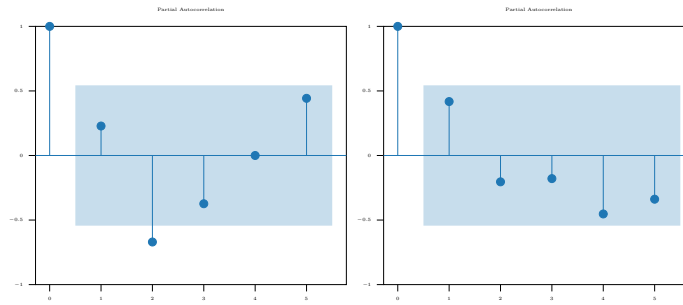
(c) sent length 20-29

(d) sent length 30-39



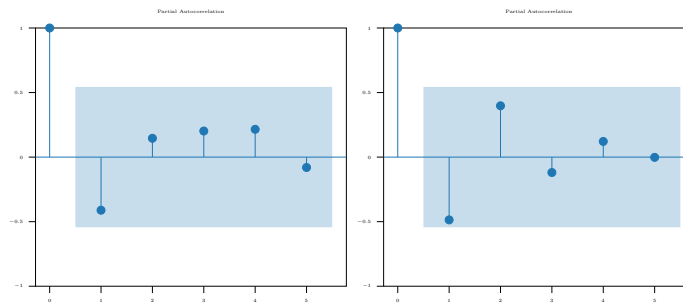
(e) sent length 40+

## 2.16.2 Statistics-pacf



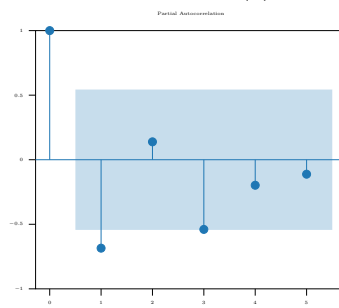
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



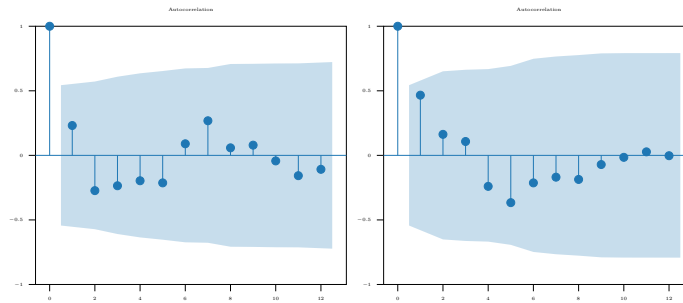
(e) sent length 40+

### **2.16.3 Statistics-cor**

sent length 02-09 - Correlation: 0.3344347736859267  
sent length 10-19 - Correlation: -0.17100236045947192  
sent length 20-29 - Correlation: 0.4135181770048049  
sent length 30-39 - Correlation: 0.36069686749674806  
sent length 40+ - Correlation: -0.21864140961088496

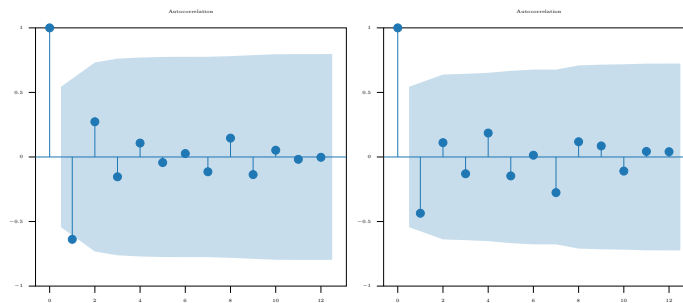
## 2.17 number of leafs16

### 2.17.1 Statistics-acf



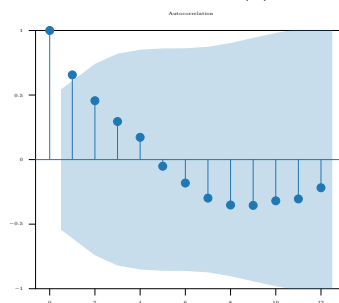
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

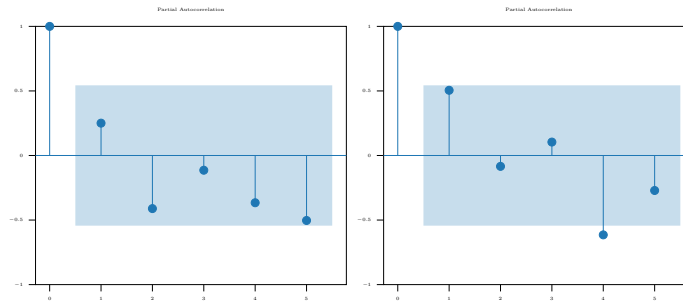
(d) sent length 30-39



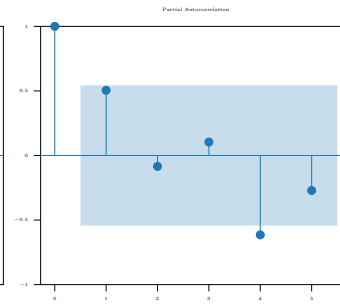
(e) sent length 40+



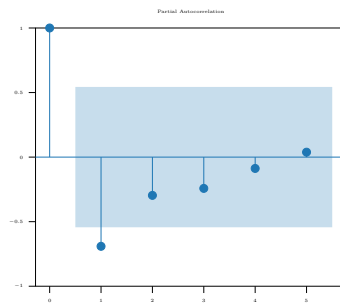
## 2.17.2 Statistics-pacf



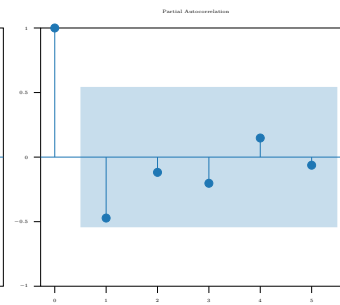
(a) sent length 02-09



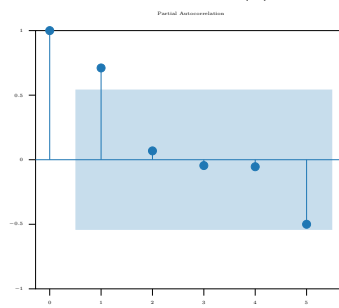
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



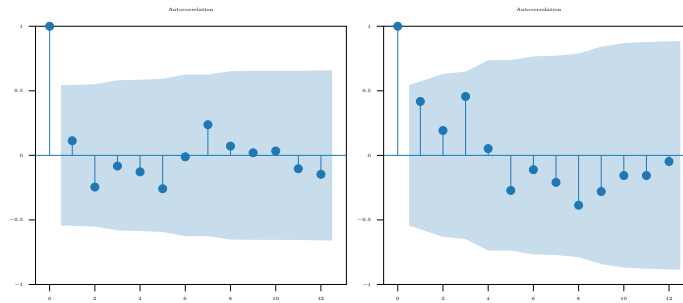
(e) sent length 40+

### **2.17.3 Statistics-cor**

sent length 02-09 - Correlation: 0.36193691612778917  
sent length 10-19 - Correlation: -0.48692325682631626  
sent length 20-29 - Correlation: 0.1466307381393136  
sent length 30-39 - Correlation: 0.038115181177085795  
sent length 40+ - Correlation: -0.9549305106350261

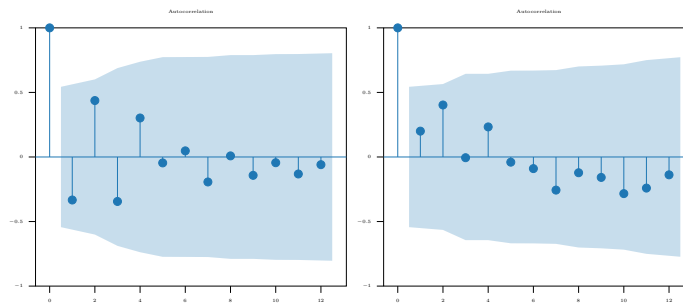
## 2.18 width of tree19

### 2.18.1 Statistics-acf



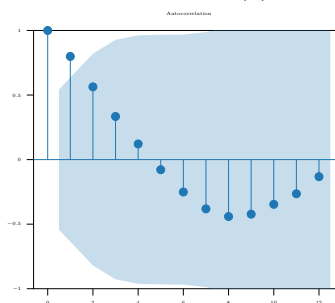
(a) sent length 02-09

(b) sent length 10-19



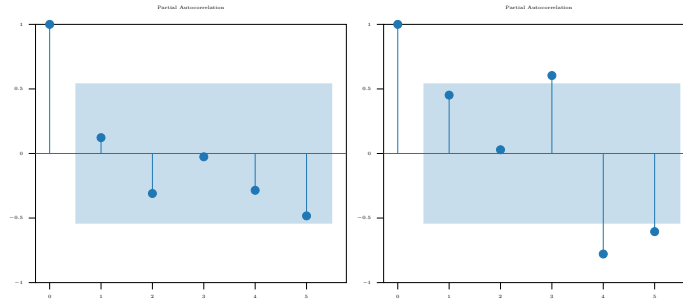
(c) sent length 20-29

(d) sent length 30-39



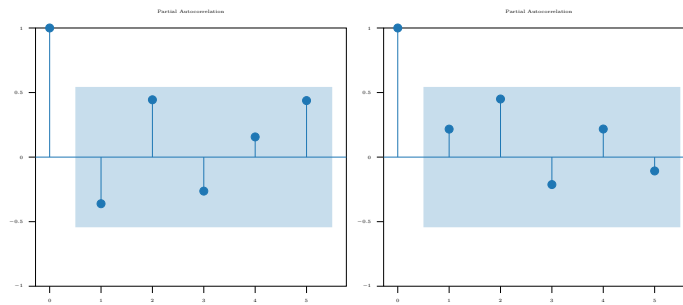
(e) sent length 40+

## 2.18.2 Statistics-pacf



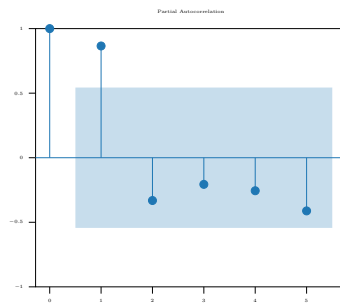
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



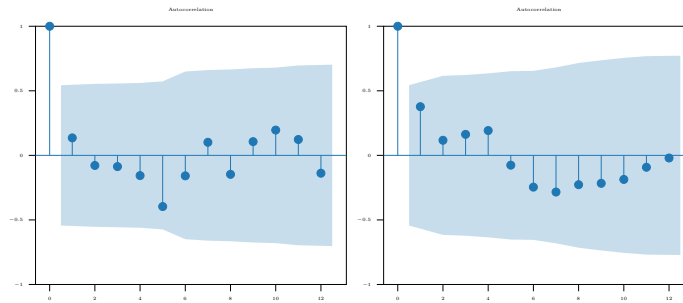
(e) sent length 40+

### **2.18.3 Statistics-cor**

sent length 02-09 - Correlation: 0.3554205790926264  
sent length 10-19 - Correlation: -0.7548278632252062  
sent length 20-29 - Correlation: -0.5010613532217458  
sent length 30-39 - Correlation: -0.7752967514249128  
sent length 40+ - Correlation: -0.9660030974655761

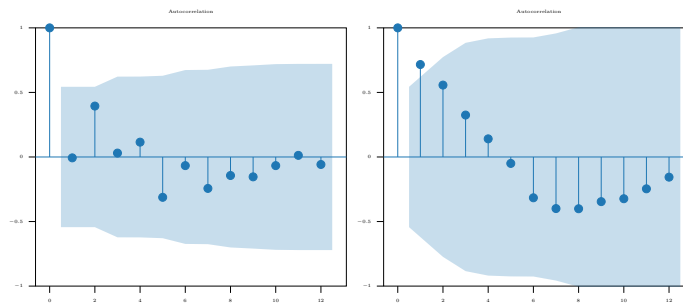
## 2.19 lowest lv max width20

### 2.19.1 Statistics-acf



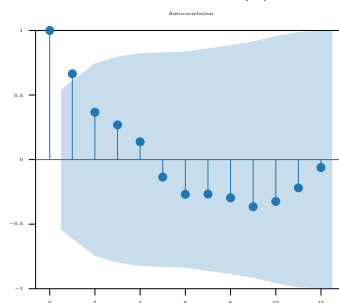
(a) sent length 02-09

(b) sent length 10-19



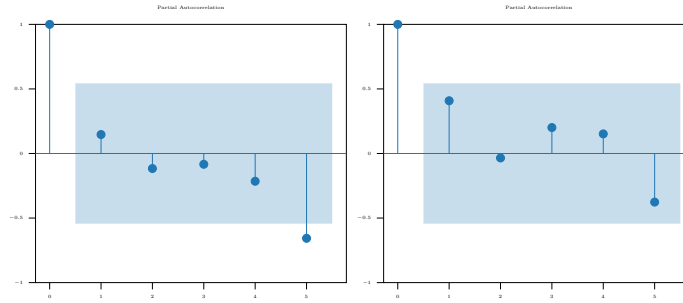
(c) sent length 20-29

(d) sent length 30-39



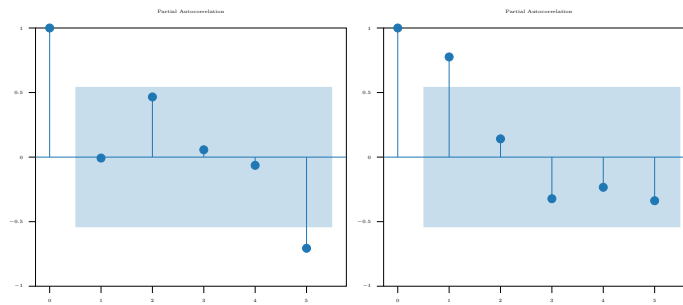
(e) sent length 40+

## 2.19.2 Statistics-pacf



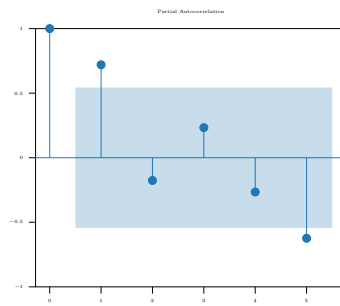
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



(e) sent length 40+

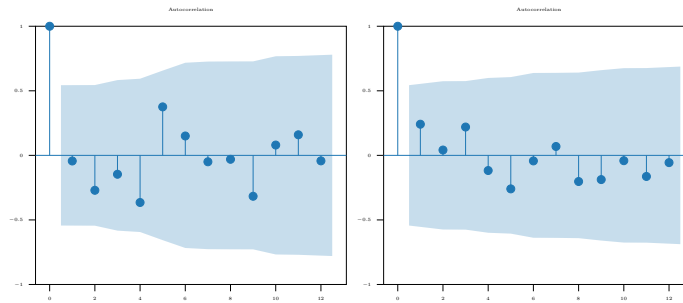
### **2.19.3 Statistics-cor**

sent length 02-09 - Correlation: 0.04435746157717845  
sent length 10-19 - Correlation: 0.6798046017167538  
sent length 20-29 - Correlation: 0.5429598515662949  
sent length 30-39 - Correlation: 0.9446108288677333  
sent length 40+ - Correlation: 0.8635564542420677



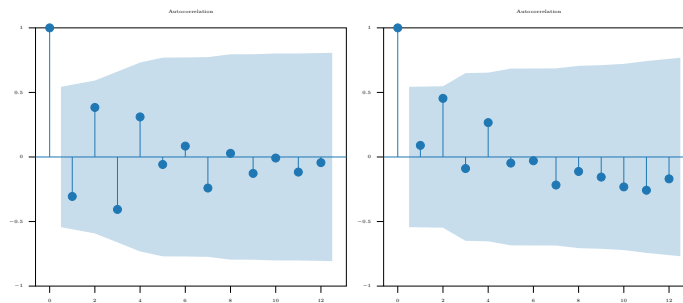
## 2.20 ratio vertices belonging latter level21

### 2.20.1 Statistics-acf



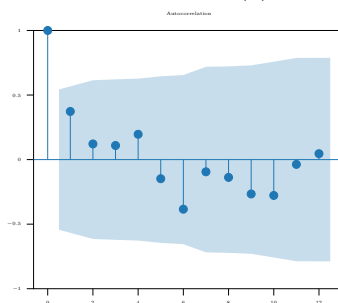
(a) sent length 02-09

(b) sent length 10-19



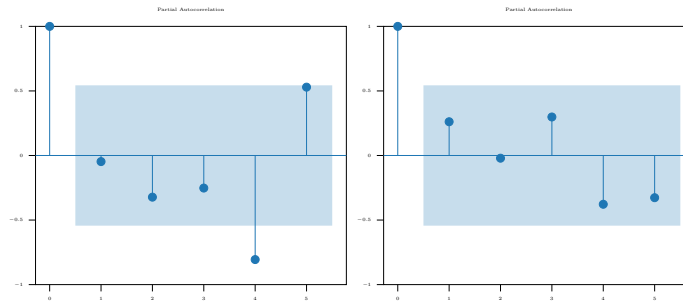
(c) sent length 20-29

(d) sent length 30-39



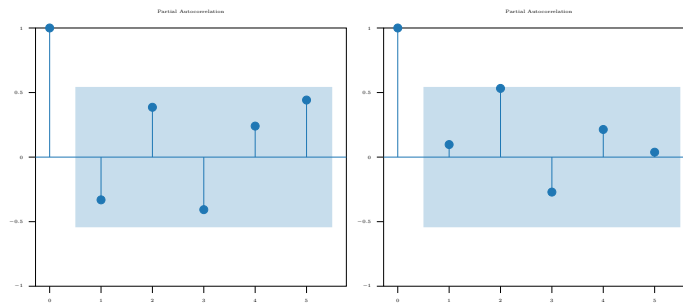
(e) sent length 40+

## 2.20.2 Statistics-pacf



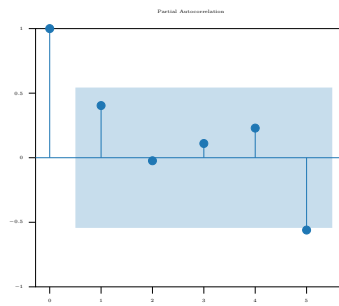
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



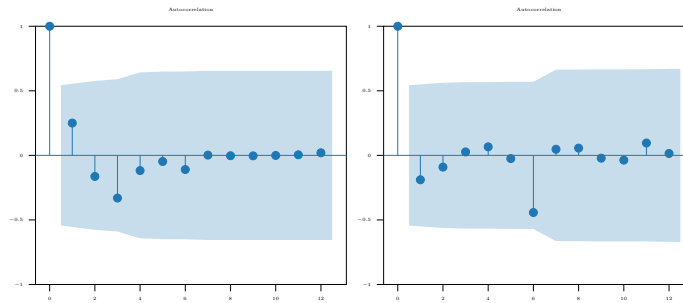
(e) sent length 40+

### **2.20.3 Statistics-cor**

sent length 02-09 - Correlation: 0.11463693610931885  
sent length 10-19 - Correlation: -0.5944204956491819  
sent length 20-29 - Correlation: -0.45342691849604694  
sent length 30-39 - Correlation: -0.7633624310328491  
sent length 40+ - Correlation: -0.6343259798524741

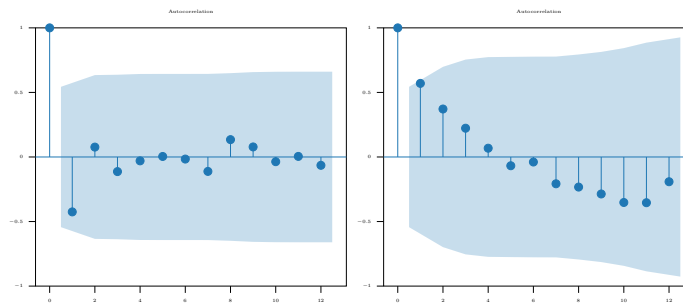
## 2.21 Hirsch index22

### 2.21.1 Statistics-acf



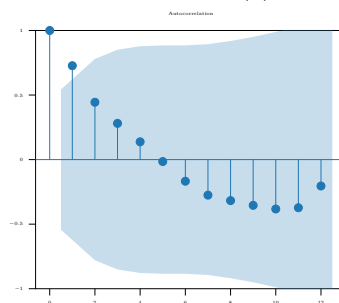
(a) sent length 02-09

(b) sent length 10-19



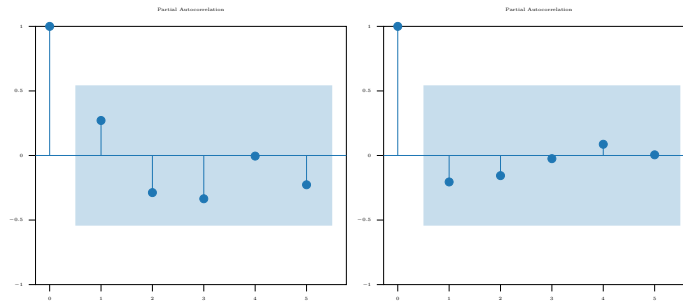
(c) sent length 20-29

(d) sent length 30-39



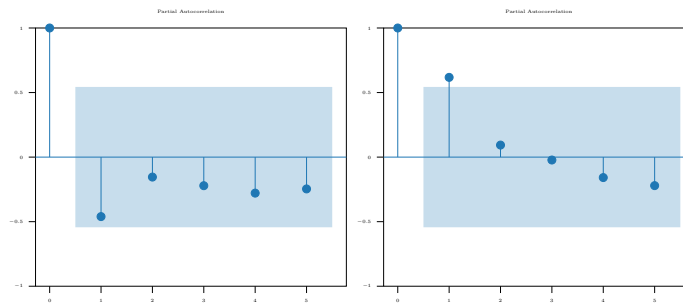
(e) sent length 40+

## 2.21.2 Statistics-pacf



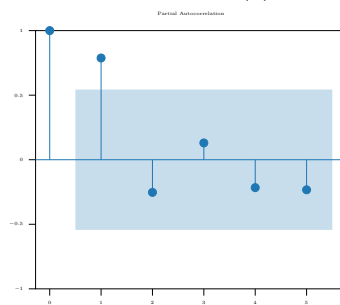
(a) sent length 02-09

(b) sent length 10-19



(c) sent length 20-29

(d) sent length 30-39



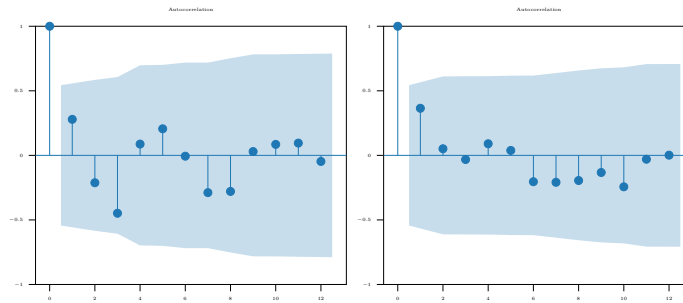
(e) sent length 40+

### **2.21.3 Statistics-cor**

sent length 02-09 - Correlation: -0.20275533828154765  
sent length 10-19 - Correlation: -0.0959329384215068  
sent length 20-29 - Correlation: -0.16673036532375582  
sent length 30-39 - Correlation: -0.9137254215083989  
sent length 40+ - Correlation: -0.9791881346978075

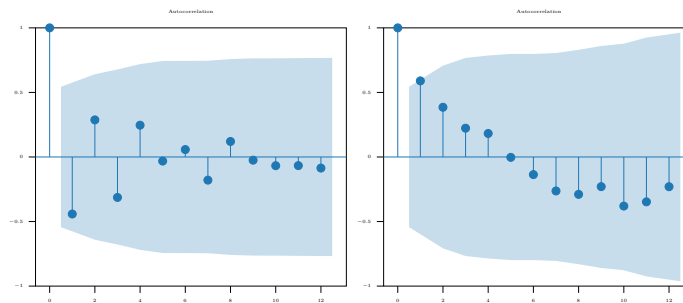
## 2.22 ratio vertices contributing h index23

### 2.22.1 Statistics-acf



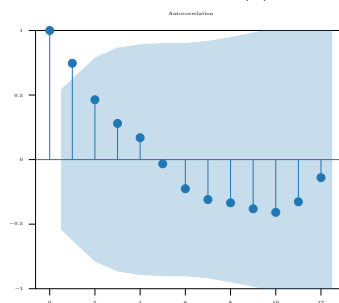
(a) sent length 02-09

(b) sent length 10-19



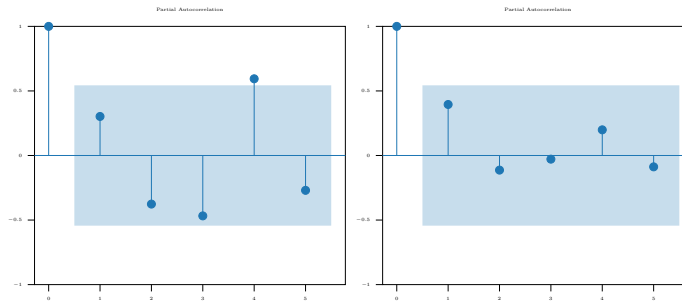
(c) sent length 20-29

(d) sent length 30-39

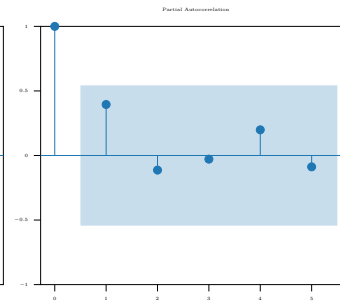


(e) sent length 40+

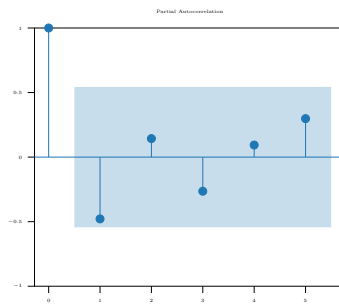
## 2.22.2 Statistics-pacf



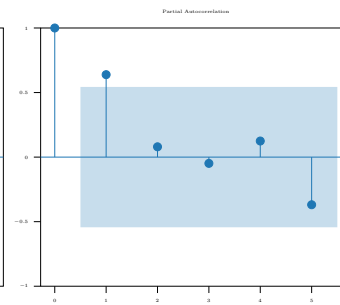
(a) sent length 02-09



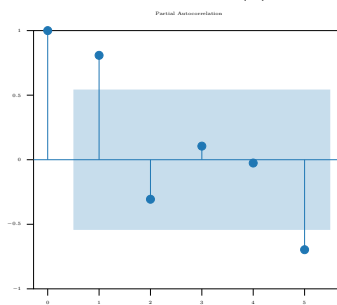
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



(e) sent length 40+

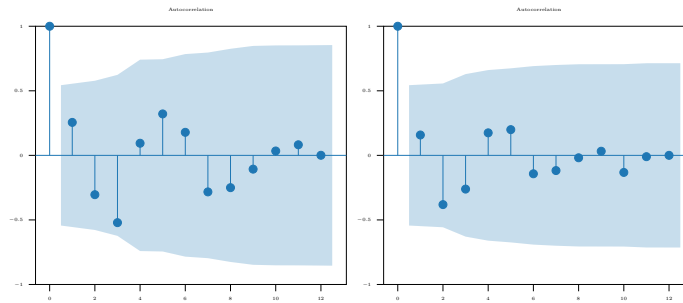


### **2.22.3 Statistics-cor**

sent length 02-09 - Correlation: -0.2841109416845264  
sent length 10-19 - Correlation: -0.6015338208438037  
sent length 20-29 - Correlation: -0.3867053318813858  
sent length 30-39 - Correlation: -0.9410517724391405  
sent length 40+ - Correlation: -0.9638543309776735

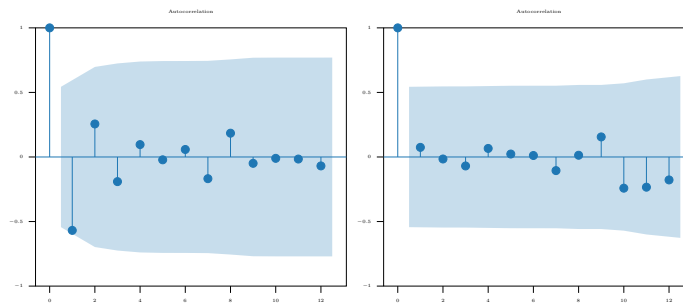
## 2.23 relative h index24

### 2.23.1 Statistics-acf



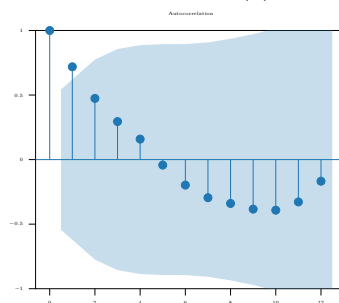
(a) sent length 02-09

(b) sent length 10-19



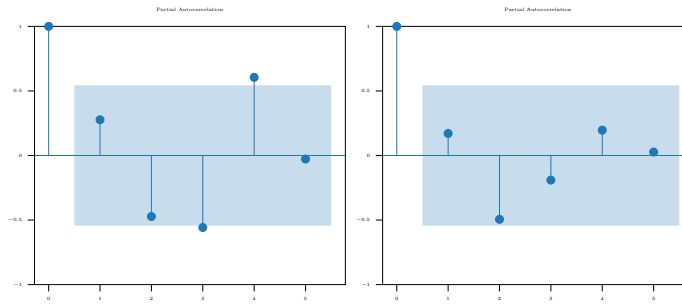
(c) sent length 20-29

(d) sent length 30-39

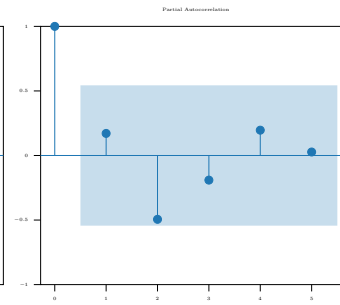


(e) sent length 40+

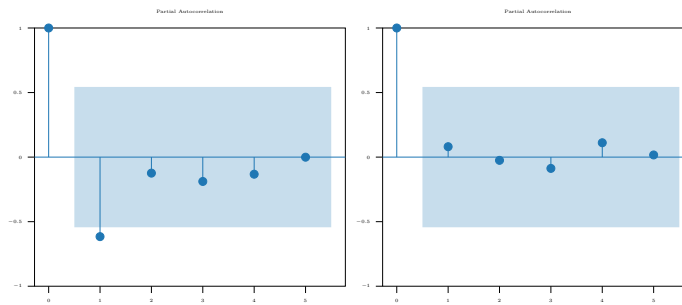
## 2.23.2 Statistics-pacf



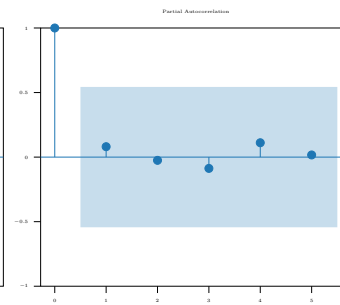
(a) sent length 02-09



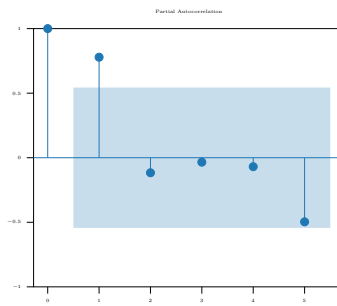
(b) sent length 10-19



(c) sent length 20-29



(d) sent length 30-39



(e) sent length 40+

### **2.23.3 Statistics-cor**

sent length 02-09 - Correlation: -0.2852194572852772  
sent length 10-19 - Correlation: -0.33033849206485766  
sent length 20-29 - Correlation: -0.25202229829113776  
sent length 30-39 - Correlation: -0.612856177553521  
sent length 40+ - Correlation: -0.9682446076450318