

Clustering by fuzzy relation

	а	б	в	г	д	е	ё	ж	з	и	й	к	л	м	н	о	п	р	с	т	у	ф	х	ц	ч	ш	щ	ь	ы	ъ	э	ю	я
а	1																																
б	0.8	1																															
в	0.2	0.4	1																														
г	0.1	0.1	0.3	1																													
д	0.1	0.3	0.2	0.5	1																												
е	0.3	0.8	0.7	0.2	0	1																											
ё	0.3	0.8	0.7	0.2	0	0.9	1																										
ж	0.1	0.2	0.2	0.1	0	0	0	1																									
з	0.2	0.2	0.1	0.1	0	0.6	0.6	0.2	1																								
и	0.1	0.1	0.1	0	0.1	0	0	0.3	0	1																							
й	0.1	0.1	0.1	0	0.1	0	0	0.2	0	0.9	1																						
к	0.1	0.1	0.7	0.2	0	0.3	0.3	0.8	0.2	0.4	0.3	1																					
л	0.1	0.9	0.1	0.2	0.8	0	0	0.2	0	0.7	0.6	0.3	1																				
м	0.1	0.4	0.3	0	0	0	0	0.7	0.7	0.3	0.3	0.2	0.9	1																			
н	0.1	0.3	0.3	0.4	0	0	0	0.6	0.1	0.8	0.8	0.9	0.6	0.7	1																		
о	0.8	0.8	0.4	0	0.4	0.7	0.6	0	0.2	0	0	0	0.2	0	0	1																	
п	0.1	0.6	0.1	0.8	0.8	0	0	0	0	0.6	0.5	0	0.9	0.7	0.7	0	1																
р	0.3	0.5	0.8	0.3	0.5	0.7	0.7	0	0.4	0	0	0	0	0	0.4	0.7	0.2	1															
с	0.3	0.7	0.3	0.3	0.2	0.7	0.7	0.3	0.2	0	0	0.4	0	0	0	0.9	0.2	0.6	1														
т	0.1	0.2	0.1	0.9	0.6	0	0	0.2	0	0	0	0.3	0.2	0.2	0.5	0	0.7	0.3	0	1													
у	0.1	0.1	0.1	0	0	0	0	0.4	0	0.7	0.7	0.2	0.3	0.1	0.1	0	0	0.7	0	0.3	1												
ф	0.4	0.4	0.9	0.1	0	0.4	0.4	0.6	0.3	0.1	0.1	0.1	0	0.2	0.2	0.7	0.1	0.8	0.8	0.5	0.5	1											
х	0.1	0.1	0.7	0	0	0	0	0.9	0.1	0.5	0.5	0.7	0.2	0.3	0.9	0	0.2	0	0	0	0.7	0.7	1										
ц	0.1	0.1	0.2	0.2	0.8	0	0	0.1	0	0.7	0.7	0.2	0.1	0.1	0.7	0	0.8	0	0	0	0.9	0	0	1									
ч	0.1	0.1	0.3	0.1	0	0	0	0.2	0	0.4	0.4	0	0.2	0	0.7	0	0.5	0.3	0	0	0.9	0.2	0.4	0.6	1								
ш	0.1	0.1	0.4	0.1	0	0	0	0.7	0.7	0.6	0.6	0	0.4	0.8	0.2	0	0.5	0	0.3	0.3	0	0	0	0.6	0	1							
щ	0.1	0.1	0.4	0.1	0.2	0	0	0.4	0.2	0.2	0	0.3	0.7	0.4	0	0.8	0	0.2	0.1	0.2	0.1	0	0	0.9	0	0.9	1						

ь	0.1	0.7	0.8	0.2	0	0.5	0.5	0.3	0	0	0.2	0	0	0.5	0.7	0.1	0.8	0.1	0	0	0.6	0	0	0.1	0	0	0	1					
ы	0.2	0.3	0.5	0	0	0.4	0.4	0	0.2	0.1	0	0.1	0	0.1	0.5	0.5	0	0.8	0.3	0	0	0.3	0	0	0.4	0.3	0.3	0.9	1				
ъ	0.1	0.6	0.8	0.2	0	0.5	0.5	0.3	0	0	0.2	0	0	0.5	0.7	0.1	0.8	0.1	0	0	0.6	0	0	0.1	0	0	0	0.9	0.9	1			
э	0.4	0.4	0.9	0	0	0.3	0.3	0.5	0.8	0	0	0.3	0	0.4	0	0.5	0	0.3	0.7	0	0	0.7	0	0	0.9	0.8	0	0	0	0	1		
ю	0.4	0.3	0.3	0.1	0	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0	0.3	0.9	0.9	0	0.2	0.7	0.1	0	0.6	0	0	0.2	0	0	0.3	0.2	0.3	0	1	
я	0.4	0.1	0.7	0	0	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0	0.3	0.9	0.9	0	0.2	0.7	0.1	0	0.6	0	0	0.2	0	0	0.3	0.2	0.3	0.3	0.4	1

	а	б	в	г	д	е	ё	ж	з	и	й	к	л	м	н	о	п	р	с	т	у	ф	х	ц	ч	ш	щ	ь	ы	ъ	э	ю	я
а	1																																
б	0.8	1																															
в	0.4	0.4	1																														
г	0.3	0.1	0.4	1																													
д	0.4	0.3	0.3	0.5	1																												
е	0.5	0.8	0.7	0.2	0.1	1																											
ё	0.4	0.8	0.7	0.2	0.3	0.9	1																										
ж	0.3	0.2	0.2	0.1	0.2	0.4	0.3	1																									
з	0.4	0.2	0.3	0.2	0.3	0.6	0.6	0.2	1																								
и	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.4	1																							
й	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.4	0.9	1																						
к	0.2	0.1	0.7	0.2	0.4	0.3	0.3	0.8	0.2	0.4	0.3	1																					
л	0.3	0.9	0.1	0.2	0.8	0.5	0.3	0.2	0.4	0.7	0.6	0.3	1																				
м	0.3	0.4	0.2	0.5	0.4	0.5	0.4	0.7	0.7	0.3	0.3	0.2	0.9	1																			
н	0.3	0.3	0.2	0.4	0.3	0.5	0.5	0.6	0.2	0.8	0.8	0.9	0.6	0.7	1																		
о	0.8	0.8	0.4	0.4	0.4	0.7	0.6	0.4	0.2	0.3	0.4	0.2	0.2	0.3	0.3	1																	
п	0.3	0.6	0.4	0.8	0.8	0.5	0.5	0.3	0.3	0.6	0.5	0.4	0.9	0.7	0.7	0.3	1																
р	0.5	0.5	0.8	0.3	0.5	0.7	0.7	0.2	0.4	0.3	0.3	0.4	0.5	0.2	0.4	0.7	0.3	1															
с	0.5	0.7	0.3	0.3	0.2	0.7	0.7	0.3	0.2	0.5	0.1	0.4	0.2	0.3	0.3	0.9	0.2	0.6	1														
т	0.2	0.2	0.2	0.9	0.6	0.5	0.4	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.5	0.3	0.7	0.3	0.4	1													
у	0.2	0.3	0.4	0.5	0.5	0.4	0.2	0.4	0.3	0.7	0.7	0.2	0.3	0.3	0.1	0.4	0.5	0.7	0.3	0.3	1												
ф	0.5	0.4	0.9	0.2	0.2	0.4	0.4	0.6	0.3	0.3	0.2	0.1	0.3	0.2	0.2	0.7	0.4	0.8	0.8	0.5	0.5	1											
х	0.3	0.1	0.7	0.4	0.2	0.3	0.2	0.9	0.1	0.5	0.5	0.7	0.2	0.3	0.9	0.4	0.2	0.3	0.4	0.5	0.7	0.7	1										
ц	0.3	0.3	0.2	0.2	0.8	0.3	0.3	0.2	0.4	0.7	0.7	0.2	0.1	0.1	0.7	0.2	0.8	0.3	0.3	0.4	0.9	0.2	0.4	1									

21	0	0	0	0	0	0	0	0	0	0.7	0.7	0	0	0	0	0	0	0.7	0	0	0													
22	0	0	0.9	0	0	0	0	0.6	0	0	0	0	0	0	0	0.7	0	0.8	0.8	0	0	0												
23	0	0	0.7	0	0	0	0	0.9	0	0	0	0.7	0	0	0.9	0	0	0	0	0	0.7	0.7	0											
24	0	0	0	0	0.8	0	0	0	0	0.7	0.7	0	0	0	0.7	0	0.8	0	0	0	0.9	0	0	0										
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0.9	0	0	0.6	0									
26	0	0	0	0	0	0	0	0.7	0.7	0.6	0.6	0	0	0.8	0	0	0	0	0	0	0	0	0	0.6	0	0								
27	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.8	0	0	0	0	0	0	0	0	0.9	0	0.9	0						
28	0	0.7	0.8	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0.8	0	0	0	0.6	0	0	0	0	0	0	0	0	0				
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0.9	0			
30	0	0.6	0.8	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0.8	0	0	0	0.6	0	0	0	0	0	0	0	0.9	0.9	0			
31	0	0	0.9	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0.9	0.8	0	0	0	0	0	0	0	
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0.9	0	0	0.7	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	
33	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0.9	0.9	0	0	0.7	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0

$I = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_1 = \{6, 7, 2, 16, 19\} = \{е, ё, ё, о, с\}$

$I = I/C_1 = \{1, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_2 = \{10, 11, 13, 15\} = \{и, й, л, н\}$

$I = I/C_2 = \{1, 3, 4, 5, 8, 9, 12, 14, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_3 = \{4, 20, 17\} = \{г, т, п\}$

$I = I/C_3 = \{1, 3, 5, 8, 9, 12, 14, 18, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_4 = \{8, 23, 22\} = \{ж, х, ф\}$

$I = I/C_4 = \{1, 3, 5, 9, 12, 14, 18, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_5 = \{21, 24, 25\} = \{у, ц, ч\}$

$I = I/C_5 = \{1, 3, 5, 9, 12, 14, 18, 26, 27, 28, 29, 30, 31, 32, 33\}$

$C_6 = \{26, 27\} = \{ш, щ\}$

$$I = I/C_6 = \{1, 3, 5, 9, 12, 14, 18, 28, 29, 30, 31, 32, 33\}$$

$$C_7 = \{28, 29, 30\} = \{\text{ь, ы, ъ}\}$$

$$I = I/C_7 = \{1, 3, 5, 9, 12, 14, 18, 31, 32, 33\}$$

$$C_8 = \{31, 3\} = \{\text{я, в}\}$$

$$I = I/C_8 = \{1, 5, 9, 12, 14, 18, 32, 33\}$$

$$C_9 = \{9, 14\} = \{\text{з, м}\}$$

$$I = I/C_9 = \{1, 5, 12, 18, 32, 33\}$$

$$C_{10} = \{1\} = \{\text{а}\}$$

$$I = I/C_{10} = \{5, 12, 18, 32, 33\}$$

$$C_{11} = \{12\} = \{\text{к}\}$$

$$I = I/C_{11} = \{5, 18, 32, 33\}$$

$$C_{12} = \{5\} = \{\text{л}\}$$

$$I = I/C_{12} = \{18, 32, 33\}$$

$$C_{13} = \{18\} = \{\text{п}\}$$

$$I = I/C_{13} = \{32, 33\}$$

$$C_{14} = \{32\} = \{\text{ю}\}$$

$$I = I/C_{14} = \{33\}$$

$$C_{15} = \{33\} = \{\text{я}\}$$