## WMT18 Spearman Correlation Improvement Relative to BLEU

Total			12F	1 (gF)	19F 2	gP 1gF 2s	gP 1gF 3	gP 1gF 3	gP 1gF 4	gP 1gF 4	of 1gf 5	gP 1gF 58
Total 1.52 0.614 1.42 0.846 1.5 0.91 1.47 1.43 1.47 1.68  Mean 0.117 0.047 0.109 0.065 0.115 0.07 0.113 0.11 0.113 0.129  SD 0.37 0.14 0.344 0.169 0.341 0.205 0.342 0.342 0.342 0.426  wmt18 cs-en -0.1 0 -0.1 0 -0.1 0 -0.1 0 -0.1 0 -0.1 0  wmt18 de-en 0.023 0.015 0.023 0.012 0.023 0.012 0.023 0 0.023 -0.003  wmt18 en-cs -0.1 0 -0.1 0 0 0 0 0 0 0 0  wmt18 en-de 0.062 0.026 0.059 0.044 0.059 0.044 0.059 0.044 0.059 0.05  wmt18 en-er 0.013 0.005 0.013 0 0.013 0 0.013 0 0.013 0 0.013  wmt18 en-er 0.021 0.014 0.014 0.014 0.014 0.014 0.014 0.014 0.014 0.014 0.014 0.021  wmt18 en-ru 0.033 0 0.033 0.033 0.033 0.033 0.033 0.033 0.033 0.033  wmt18 en-tr 0.31 0.095 0.31 0.167 0.31 0.262 0.31 0.31 0.31 0.31  wmt18 et-en -0.014 -0.02 -0.014 -0.007 -0.014 -0.02 -0.014 -0.02 -0.014 -0.02  wmt18 fi-en 0.071 0.047 0.071 0.047 0.071 0 0.071 0 0.071 0  wmt18 tr-en 1.3 0.5 1.2 0.66 1.2 0.695 1.2 1.2 1.2 1.5			macro_re	micro_re	acro_re	icro_re	acro_re	icro_re	acro_re	icro_re	acro_re	icro_re
SD         0.37         0.14         0.344         0.169         0.341         0.205         0.342         0.342         0.342         0.426           wmt18 cs-en         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.01         0         0         0         0         0.023         -0.003         -0.003         wmt18 en-cs         -0.1         0         -0.1         0		Total	1.52		· ·	<u> </u>			1.47	1.43	1.47	1.68
wmt18 cs-en         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.1         0         -0.1         0         wmt18 de-en         0.023         0.015         0.023         0.012         0.023         0.012         0.023         0.012         0.023         0.012         0.023         0.012         0.003         0.0023         0.003         -0.003           wmt18 en-de         0.062         0.026         0.059         0.044         0.013         0         0.013         0         0.013         0         0.013         0<		Mean	0.117	0.047	0.109	0.065	0.115	0.07	0.113	0.11	0.113	0.129
wmt18 de-en         0.023         0.015         0.023         0.012         0.023         0.012         0.023         0.012         0.023         0.012         0.023         0.012         0.023         0.023         -0.003           wmt18 en-cs         -0.1         0         -0.1         0 <t< td=""><td></td><td>SD</td><td>0.37</td><td>0.14</td><td>0.344</td><td>0.169</td><td>0.341</td><td>0.205</td><td>0.342</td><td>0.342</td><td>0.342</td><td>0.426</td></t<>		SD	0.37	0.14	0.344	0.169	0.341	0.205	0.342	0.342	0.342	0.426
wmt18 en-cs         -0.1         0         -0.1         0         0         0         0         0         0         0           wmt18 en-de         0.062         0.026         0.059         0.044         0.013         0         0.013         0         0.013         0         0.013         0         0.013         0         0.014         0.033         0.033         0.033 <th< td=""><td>wm</td><td>nt18 cs-en</td><td>-0.1</td><td>0</td><td>-0.1</td><td>0</td><td>-0.1</td><td>0</td><td>-0.1</td><td>0</td><td>-0.1</td><td>0</td></th<>	wm	nt18 cs-en	-0.1	0	-0.1	0	-0.1	0	-0.1	0	-0.1	0
wmt18 en-de         0.062         0.026         0.059         0.044         0.013         0         0.013         0         0.013         0         0.013         0         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.031         0.31         0.31         0.31         0.31         0.31         0.31         0.31         0.031         0.031         0.031         0.031			0.023	0.015	0.023	0.012	0.023	0.012	0.023	0	0.023	-0.003
wmt18 en-de         0.062         0.026         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.044         0.059         0.013         0         0.013         0         0.013         0         0.013         0         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.014         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.033         0.031         0.31         0.31         0.31         0.31         0.31         0.31         0.31         0.031         0.031         0.031         0.032	¥ wm	nt18 en-cs	-0.1	0	-0.1	0	0	0	0	0	0	0
wmt18 en-ru         0.033         0         0.033         0.031         0.03         0.03	$\rightarrow$		0.062	0.026	0.059	0.044	0.059	0.044	0.059	0.044	0.059	0.05
wmt18 en-ru         0.033         0         0.033         0.031         0.03         0.03	5 wm	nt18 en-et	0.013	0.005	0.013	0	0.013	0	0.013	0	0.013	0
wmt18 en-tr         0.31         0.095         0.31         0.167         0.31         0.262         0.31         0.31         0.31         0.31           wmt18 et-en         -0.014         -0.02         -0.014         -0.007         -0.014         -0.02         -0.014         -0.02         -0.014         -0.02           wmt18 fi-en         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016           wmt18 ru-en         0.071         0.047         0.047         0.071         0         0.071         0         0.071         0           wmt18 tr-en         1.3         0.5         1.2         0.6         1.2         0.695         1.2         1.2         1.2         1.5	Slat wn	nt18 en-fi	0.021	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.021
wmt18 en-tr         0.31         0.095         0.31         0.167         0.31         0.262         0.31         0.31         0.31         0.31           wmt18 et-en         -0.014         -0.02         -0.014         -0.007         -0.014         -0.02         -0.014         -0.02         -0.014         -0.02           wmt18 fi-en         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016         -0.016           wmt18 ru-en         0.071         0.047         0.047         0.071         0         0.071         0         0.071         0           wmt18 tr-en         1.3         0.5         1.2         0.6         1.2         0.695         1.2         1.2         1.2         1.5	g wm	t18 en-ru	0.033	0	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033
wmt18 fi-en       -0.016 </td <td></td> <td>nt18 en-tr</td> <td>0.31</td> <td>0.095</td> <td>0.31</td> <td>0.167</td> <td>0.31</td> <td>0.262</td> <td>0.31</td> <td>0.31</td> <td>0.31</td> <td>0.31</td>		nt18 en-tr	0.31	0.095	0.31	0.167	0.31	0.262	0.31	0.31	0.31	0.31
wmt18 ru-en       0.071       0.047       0.047       0.071       0       0.071       0       0.071       0       0.071       0         wmt18 tr-en       1.3       0.5       1.2       0.6       1.2       0.695       1.2       1.2       1.2       1.5	wm	nt18 et-en	-0.014	-0.02	-0.014	-0.007	-0.014	-0.02	-0.014	-0.02	-0.014	-0.02
wmt18 tr-en 1.3 0.5 1.2 0.6 1.2 0.695 1.2 1.2 1.2 1.5	wn	nt18 fi-en	-0.016	-0.016	-0.016	-0.016	-0.016	-0.016	-0.016	-0.016	-0.016	-0.016
	wm	t18 ru-en	0.071	0.047	0.071	0.047	0.071	0	0.071	0	0.071	0
wmt18 zh-en -0.079 -0.052 -0.074 -0.048 -0.096 -0.114 -0.123 -0.136 -0.123 -0.197	wm	nt18 tr-en	1.3	0.5	1.2	0.6	1.2	0.695	1.2	1.2	1.2	1.5
	wm	t18 zh-en	-0.079	-0.052	-0.074	-0.048	-0.096	-0.114	-0.123	-0.136	-0.123	-0.197

Metrics