**Table 2.** First four moments of random flux error (*ε*) for *QH*, *QE*, and *FC*, and the linear relationship (Figs. 6d–f) between random flux error CO2 (*σ*(*ε*)) and the magnitude of the measured flux (). Only data from the south direction (135–315°) are used.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Season** | ***n*** |  |  | ***σ*(*ε*)** | ***σ*(*ε*)/** | **Skew** | **Kurt** | **Scaling at** |
| ***QH*** | **Total** | **882** | **59.7** | **0.9** | **16.4** | **0.28** | 0.3 | 5.8 | *σ*(*ε*) = 15.16 + 0.11×*QH*  *r*2 = 0.84 |
| Spring | 256 | 91.9 | 1.0 | 20.2 | 0.22 |
| Summer | 227 | 45.6 | –0.2 | 14.4 | 0.32 |
| Autumn | 269 | 46.2 | 1.9 | 12.8 | 0.28 |
| Winter | 130 | 48.7 | 1.0 | 15.9 | 0.33 |
| ***QE*** | **Total** | **838** | **21.9** | **1.4** | **18.2** | **0.83** | 0.8 | 7.4 | *σ*(*ε*) = 8.80 + 0.31×*QE*  *r*2 = 0.92 |
| Spring | 239 | 25.0 | 1.2 | 18.9 | 0.76 |
| Summer | 223 | 30.3 | 1.7 | 23.7 | 0.78 |
| Autumn | 251 | 18.7 | 1.7 | 16.0 | 0.86 |
| Winter | 125 | 7.6 | 0.7 | 5.4 | 0.71 |
| ***FC*** | **Total** | **928** | **7.9** | **0.02** | **6.3** | **0.80** | –0.2 | 4.4 | *σ*(*ε*) = 3.97 + 0.24×*FC*  *r*2 = 0.69 |
| Spring | 270 | 8.7 | 0.3 | 6.7 | 0.77 |
| Summer | 246 | 7.0 | 0.04 | 5.8 | 0.83 |
| Autumn | 267 | 7.0 | 0.2 | 6.4 | 0.91 |
| Winter | 145 | 9.9 | –0.8 | 6.5 | 0.66 |