

Tsallis statistics and fully developed turbulence

This article has been downloaded from IOPscience. Please scroll down to see the full text article.

2001 J. Phys. A: Math. Gen. 34 673

(<http://iopscience.iop.org/0305-4470/34/3/501>)

View [the table of contents for this issue](#), or go to the [journal homepage](#) for more

Download details:

IP Address: 171.66.16.97

The article was downloaded on 02/06/2010 at 09:09

Please note that [terms and conditions apply](#).

Corrigendum

Tsallis statistics and fully developed turbulence

T Arimitsu and N Arimitsu 2000 *J. Phys. A: Math. Gen.* **33** L235–L241

Less accurate numerical values were given in the original table 1 than are now presented in the revised table 1 below. Accordingly, the previously published versions of figures 1 and 2 differ slightly from the revised versions below.

For $\mu = 0.235$ (case d in table 1), the values of some other parameters should also be corrected, such that the paragraph between equations (28) and (29) should now read as:

For $\mu = 0.235$ [8], we have $q = 0.380$, $\alpha_0 = 1.136$, $X = 0.279$ (case d in table 1). Then, we obtain $\alpha_+ - \alpha_0 = \alpha_0 - \alpha_- = 0.674$, $\alpha_{\max} - \alpha_0 = \alpha_0 - \alpha_{\min} = 1.139$ and $\bar{q}(\alpha_-) = -\bar{q}(\alpha_+) = 3.709$.

Table 1. Parameters q , α_0 and X for several values of μ .

μ	q	α_0	X	
a	0.175	0.207	1.100	0.206
b	0.200	0.288	1.115	0.237
c	0.225	0.356	1.130	0.267
d	0.235	0.380	1.136	0.279
e	0.250	0.413	1.145	0.298
f	0.275	0.462	1.159	0.328
g	0.300	0.504	1.174	0.358

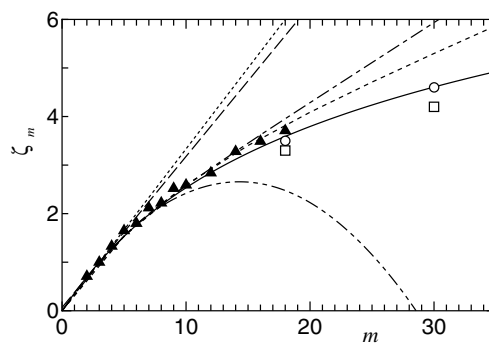


Figure 1. Scaling exponents ζ_m of velocity structure functions. The present result for $\mu = 0.235$ is given by the solid curve. The solid triangles are the experimental results by Anselmet *et al* [11]; the squares and the circles are from [5]. K41 is given by the dotted line, the β -model ($D_\beta = 2.8$) by the dashed line, the p-model ($\mu = 0.235$) by the dotted–dashed curve, the log-Poisson model by the short-dashed curve and the log-normal model ($\mu = 0.235$) by the double-dotted–dashed curve.

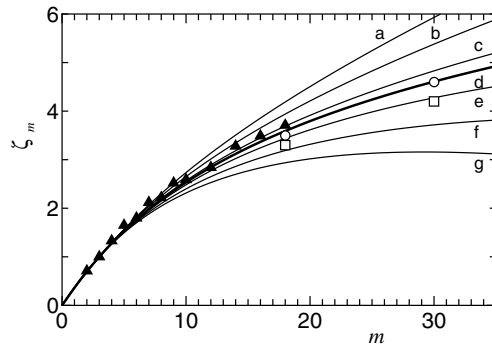


Figure 2. Scaling exponents ζ_m for the cases in table 1.