In this paper, recent progress in the dynamical systems approach to Burgers turbulence is discussed. Most of the results are obtained for the $d$-dimensional Burgers equation

$$\partial_t u + (u \cdot \nabla) u = \nu \Delta u + f(y, t), \quad y \in \mathbb{R}^d,$$

where the external force $f$ has either the form

$$f(y, t) = -\nabla F(y, t), \quad F(y, t) = \sum_{k=1}^{N} F_k(y) B_k(t),$$

where $F_k$ are smooth potentials and $B_k$ are independent white noises, or the form

$$f(y, t) = -\nabla F(y, t), \quad F(y, t) = \sum_{j \in \mathbb{Z}} F_j(y) \delta(t - t_j)$$


{For the collection containing this paper see MR1905309}

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