

# ON THE ZERO SET OF SUPER-BROWNIAN MOTION

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**Abstract:** We study the density of one-dimensional super-Brownian motion given by the non-negative solution of

$$\frac{\partial X(t, x)}{\partial t} = \frac{1}{2} \frac{\partial^2 X(t, x)}{\partial x^2} + \sqrt{X(t, x)} \dot{W}(t, x).$$

Here  $\dot{W}$  is a space-time Gaussian white noise. We determine the Hausdorff dimension of the boundary of the zero set of  $X(t, \cdot)$ . This is a joint work with C. Mueller and E. Perkins.