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MAXIMA IN BROWNIAN EXCURSIONS

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Let $\{X(t), t \geq 0\}$ be the standard one-dimensional Brownian motion starting at 0. For $t > 0$ define

$$T(t) = \sup\{s \leq t \mid X(s) = 0\}; \quad T'(t) = \inf\{s \geq t \mid X(s) = 0\};$$

$$L^-(t) = t - T(t); \quad L(t) = T'(t) - T(t);$$

$$M^-(t) = \max_{T(t) \leq s < t} |X(s)|; \quad M(t) = \max_{T(t) \leq s < T'(t)} |X(s)|.$$

The random time interval $(T(t), T'(t))$ is the *excursion interval straddling t* ,

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