β -paths in the Hammersley process.

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ABSTRACT: We study the asymptotics of β -paths in the Hammersley process with sources and sinks, of intensities λ and ρ respectively, introduced by Groeneboom (2002). We derive a strong law of large number for those paths in the regime $\lambda \rho \leq 1$ and we show that its fluctuation exponent is at most 2/3. Examples of β -paths are the space-time path of a second-class particle in the Hammersley process and also the space-time path of the interface between two PNG droplets.