Fujita phenomenon in the hyperbolic space

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Since the pioneering work of Fujita in 1966, it is known that the Cauchy problem for reaction diffusion equations with power nonlinearities exhibits blow-up, but whether this is the case for all solutions, depends on a critical value, the Fujita exponent. We will discuss here similar results which hold in the hyperbolic space and were obtained with Catherine Bandle and Alberto Tesei. Such results show that the hyperbolic space is closer to a bounded domain, then to the whole Euclidean space.

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