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Wall-crossing phenomena for Newton-Okounkov bodies. Preliminary report.

A Newton-Okounkov body is a convex set associated to a projective variety, equipped with a valuation. These bodies generalize the theory of Newton polytopes. Work of Kaveh-Manon gives an explicit link between tropical geometry and Newton-Okounkov bodies. We use this link to describe a wall-crossing phenomenon for Newton-Okounkov bodies. As an application we show how the wall-crossing formula for the tropicalization of $\text{Gr}(2, n)$ is an instance of our phenomenon for Newton-Okounkov bodies. (Received February 17, 2018)