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**Hugo Parlier\*** ([hugo.parlier@gmail.com](mailto:hugo.parlier@gmail.com)), Department of Mathematics, University of Toronto, 40 St. George street, Toronto, Ontario M5S 2E4, Canada. *Sums of lengths of pants decompositions.*

It is a well known theorem of Bers that complete finite area hyperbolic Riemann surfaces admit short pants decompositions (of length bounded by constants, called Bers' constants, which only depend on genus  $g$  and number of cusps  $n$ ). To measure the length of a pants decomposition, one often looks at the maximum length of curves that it is composed of but one also could consider the sum of the lengths. Both measures give rise to different quantifications of Bers' constants.

The talk will be about new results concerning sums of lengths. In particular the goal will be to show that these constants behave very differently if one lets the genus grow or if instead one lets the number of cusps grow. The results concerning the genus growth are joint with L. Guth and R. Young, and the results concerning cusp growth are joint with F. Balacheff and S. Sabourau. (Received February 19, 2010)