1007-20-205 **Igor Mineyev*** (mineyev@math.uiuc.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, 250 Altgeld Hall, 1409 W. Green Street, Urbana, IL 61801. *Symmetric join functor.*

I will describe the functor $\circledast$ that associates to every metric space X its symmetric join $\circledast X$.

(Here is how these symbols were typed: http://www.math.uiuc.edu/~mineyev/math/art/symbols.pdf)

$\circledast X$ is a natural union of intervals connecting pairs of points in X, and it possesses a natural metric so that the inclusion $X \hookrightarrow \circledast X$ is an isometric embedding. The functor $\circledast$ applies to any metric space.

In a joint work with G. Yu a "nice" metric $\hat{d}$ on a hyperbolic group was constructed. When applied to a hyperbolic group or graph with the metric $\hat{d}$, the symmetric join extends to the ideal boundary. This gives rise to a geodesic flow space with sharp properties which is an analog of the (total space of) the unit tangent bundle in hyperbolic manifolds. The above constructions allow avoiding "quasi"-language in hyperbolic groups. (Received February 21, 2005)