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Carmen Caprau*, Department of Mathematics, 5245 N. Backer Ave. M/S PB108, Fresno, CA 93740. *An invariant for handlebody-tangles*. Preliminary report.

A handlebody-tangle is a disjoint union of handlebodies embedded in the 3-ball B^3 , such that the intersection of the handlebodies with ∂B^3 consists of disks (called end disks). Two handlebody-tangles are equivalent if one can be transformed into the other by an isotopy of B^3 which fixes ∂B^3 . A handlebody-link can be regarded as a handlebody-tangle with no end disks.

We use the Kauffman bracket to construct a numerical invariant for handlebody- tangles/links. (Received February 02, 2012)