

Abstract for an Invited Paper  
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**The Nature of Memory Objects in the Brain**

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Our mind keeps a huge number of memories. We discuss here the number  $M$  of neurons which must be implied in one primal memory object (the smell of a rose). We find that (in a storage area which is not genetically designed) spatial and connectivity requirements impose that  $M$  be *very small* (of the order of 3). We then extend these considerations to associative memories (where the smell of a rose evokes the color of a rose).