

**AN ELEMENTARY QUALITATIVE MODEL FOR
DIFFUSION AND AGGREGATION OF A-beta AMYLOID
IN
ALZHEIMER'S DISEASE**

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In this talk I discuss an elementary mathematical model of the diffusion in the brain and of the aggregation of A-beta amyloid in Alzheimer's disease, leading ultimately to the neuron death as well as to the formation of the so called senile plaques. The model is based on the classical Smoluchowski equation with diffusion. I discuss also a numerical scheme for the approximation of the solution, and the results of the numerical simulation in light of the recent biomedical literature.