HOMOGENIZATION AND CONCENTRATED CAPACITY FOR THE HEAT EQUATION WITH NON–LINEAR VARIATIONAL DATA IN RETICULAR ALMOST DISCONNECTED STRUCTURES AND APPLICATIONS TO VISUAL TRANSDUCTION

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Abstract

We investigate the phototransduction processes taking place in rod cells. A mathematical model is obtained as the homogenization limit of a suitable reaction diffusion system. The model takes into account the striking fact that diffusion in the rod occurs within thin layers with different geometrical and functional properties.

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