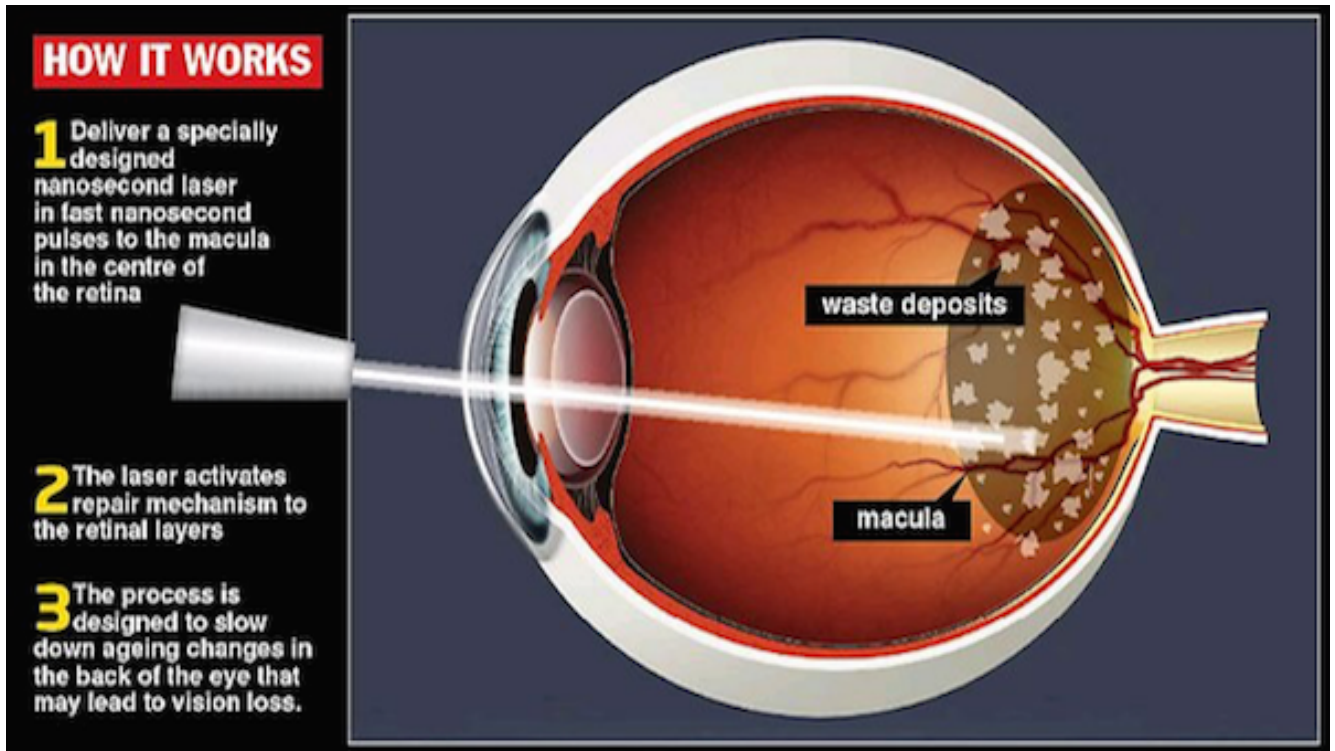


# Gaussian Mixture Model for Random Sequence of Multiple Burns in Pattern Scanning Laser Photocoagulation

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Pattern Scanning Laser Photocoagulation (PASCAL) as one of the retinal therapy methods, delivers a rapid sequence of multiple burns in the form of a random pattern array created by scanner; and, cause extra damages to the retina. I believe that the solution is selecting a distribution model for the mentioned pattern based on the graph of segmented blood vessels in the detected macula edema region in the localized image using feature extraction. The distribution is a mixture of  $n$  Gaussian models with variances  $\sigma_1, \sigma_2, \dots, \sigma_n$ , respectively. In this model,  $\sigma_i$  is selected proportional to the corresponding parent vessel diameter and  $n$  is the number of nodes.

