

# 3<sup>rd</sup> International Conference and Exhibition on **Cosmetology & Trichology**

July 21-23, 2014 Hampton Inn Tropicana, Las Vegas, USA

## Fractal morphometry of skin surface irregularities: A methodological proposal

**Gabriele A Losa**

Institute of Scientific Interdisciplinary Studies, Switzerland

In the time regained the last volume of *A' la Recherche du Temps Perdu*, Marcel Proust in his attempt to depict people getting old wrote "And they did not even appear to have aged". There were other men and women who did not seem to have aged; their outlines were as slim, their faces as young as ever", "Their age, like the presence of infusoria in a glass of water, was brought about less by the progress of years than by the scale of enlargement in the observer's vision". Such observation that aging may depend from the distance at which the face is examined rather than from the passing of years, suggest that aging occurs through an irregular scaling free process could evoke a main principle of the Fractal Geometry. An experimental procedure exploiting the mentioned principle would enable to gain data suitable in evaluating the real effect of anti-aging and cosmetic treatments applied to human skin. Pictures of skin may be taken on faces from untreated and treated individuals by a random systematic procedure, projected onto a plane and skin outlines segmented. Segmented profiles may be analyzed by means of a performant program recently developed and the degree of skin irregularity expressed by a peculiar fractal numerical dimension (non integer value). The lower the value of the fractal dimension the smoother the skin surface. In short, that is an objective approach for evaluating the cosmetic effect on the physiological stage of skin.

[glosa@cerfim.ch](mailto:glosa@cerfim.ch)