

Integrating spatial and chromatic properties for a better definition of food appearance

Nuria Acevedo¹, Carolina Schebor¹, Silvia B. Matiacevich¹, Marcela Agudelo¹, Jose Luis Caivano² and María del Pilar Buera^{1*}

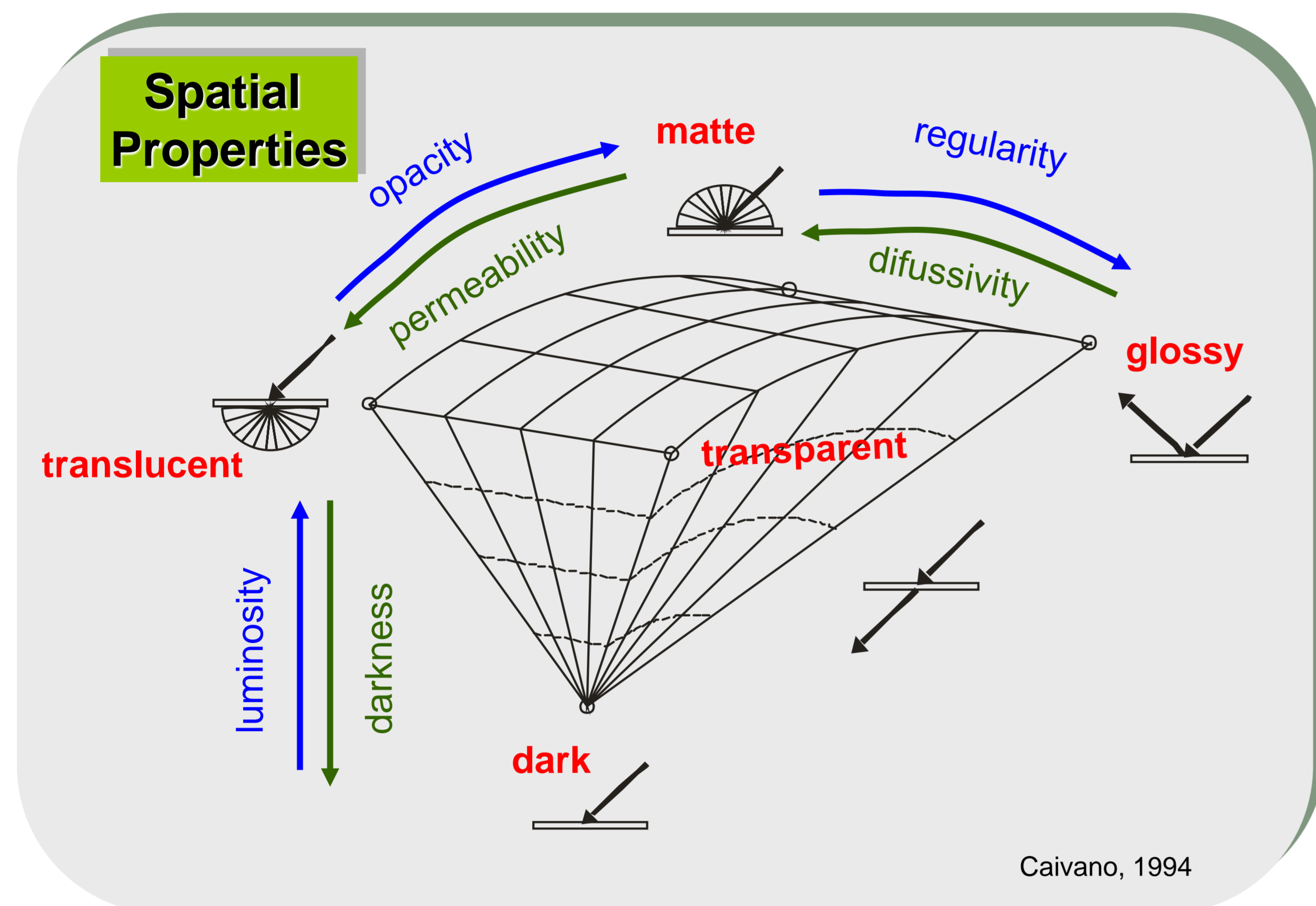
1. Departamentos de Industrias y de Química Orgánica, Facultad de Ciencias Exactas y Naturales. Universidad de Buenos Aires. Argentina

2. SI- Facultad de Arquitectura y Urbanismo, Universidad de Buenos Aires. Argentina

*pilar@di.fcen.uba.ar

OBJECTIVE

Transfer the knowledge and experience on colour and spatial properties measurement acquired through research in diverse areas and materials to undergraduate and graduate food science classes in the School of Exact and Natural Sciences of Buenos Aires University.



Experimental methods

Luminosity/colour

- ❖ spectrophotometer
- ❖ photocolorimeter
- ❖ computer vision system



Opacity

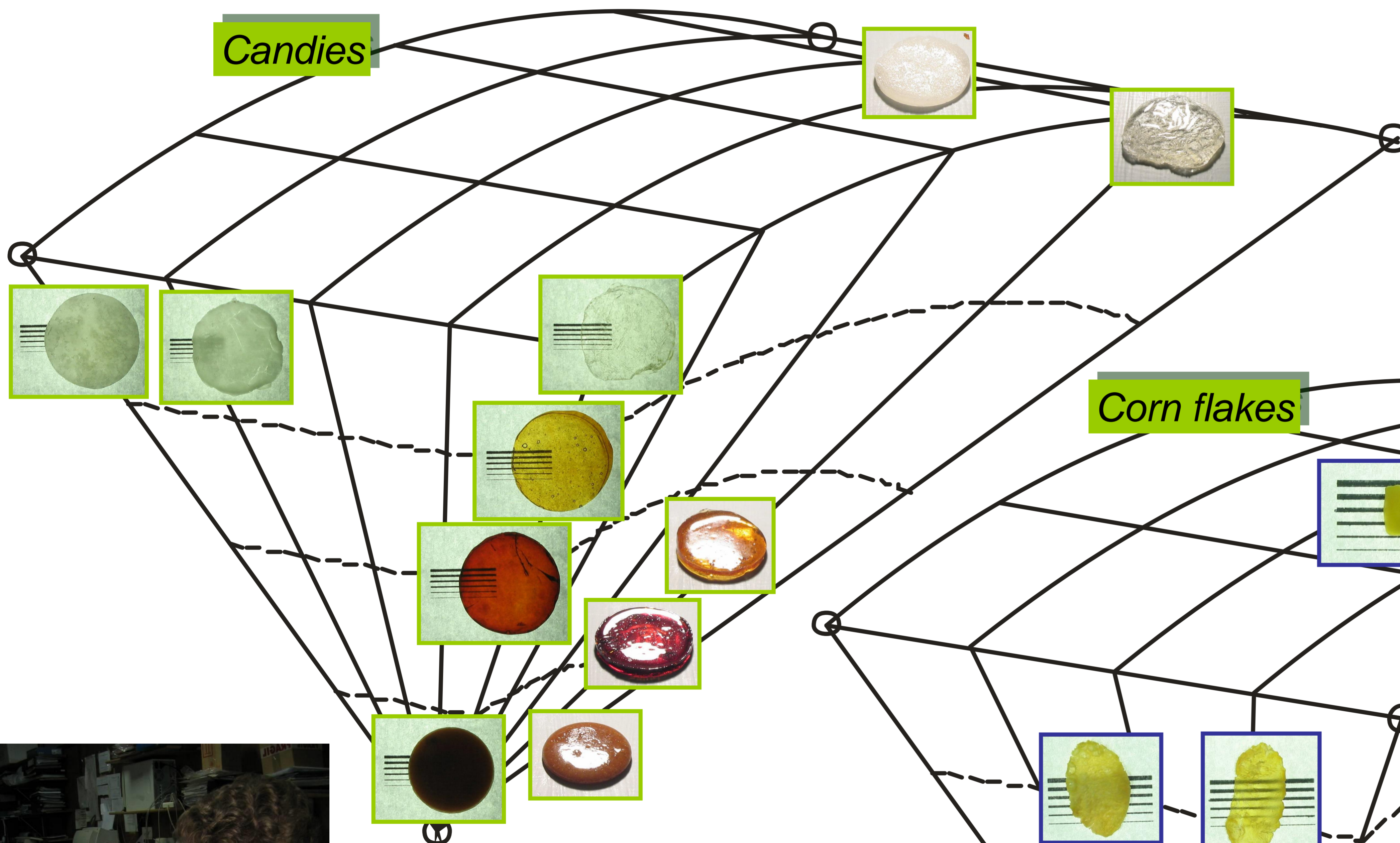
- ❖ photocolorimeter
 - ❖ computer vision system
- white and black backgrounds
Kubelka-Munk equations

Gloss

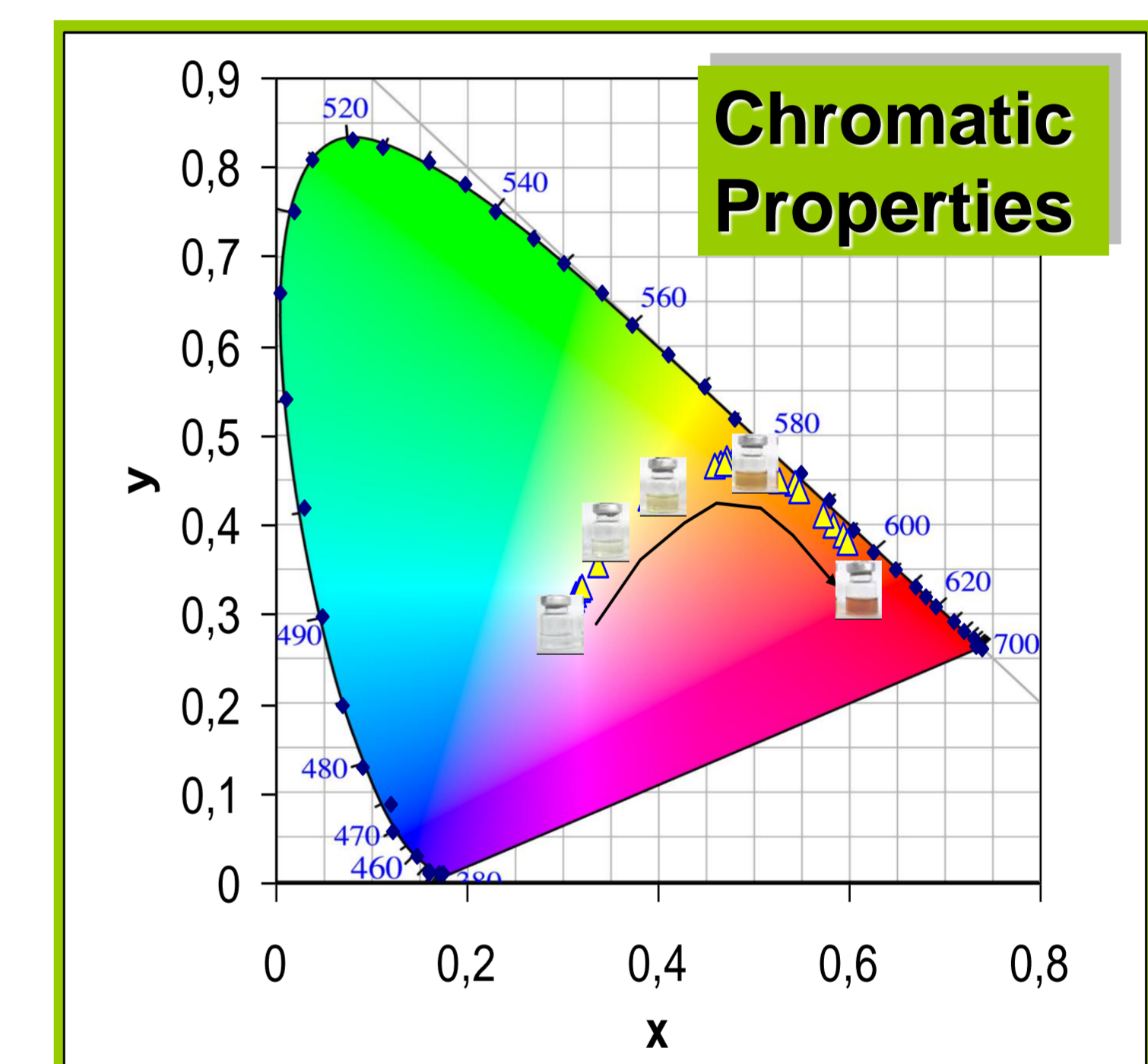
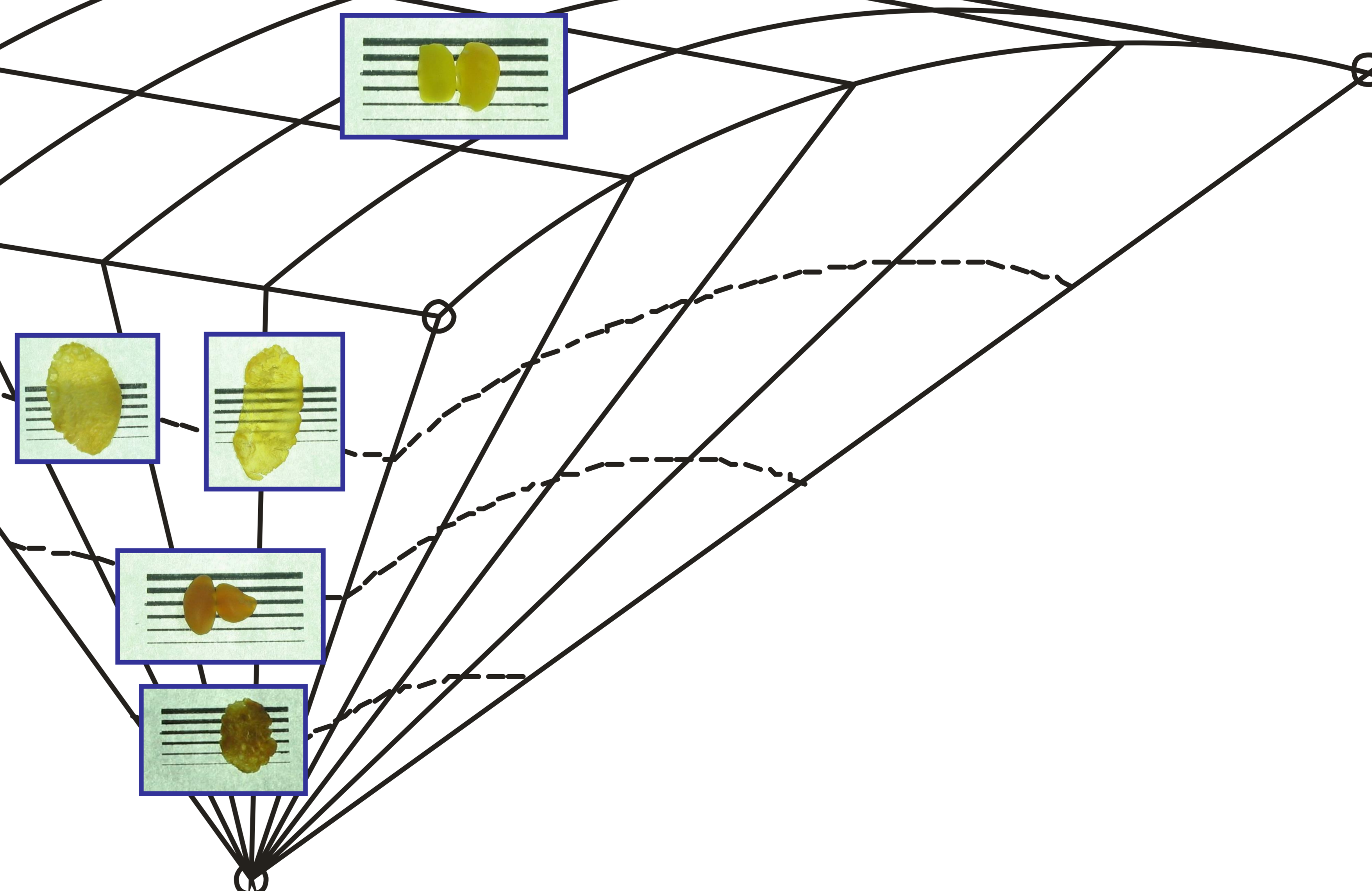
- ❖ glossmeter



Candies



Corn flakes



CONCLUSIONS

The experiments allow to conclude that the combination of spectral and spatial attributes are essential for a proper evaluation of food appearance. It is important to open food science courses to the input from different areas of knowledge.

On the other side, students feedback could also be valuable for the food industry.

