



## Seminar “IRTG Soft Matter Science”

# Prediction of the mixing behaviour in lipid bilayers

**Dr. Fabrice Thalmann**  
*Institut Charles Sadron, Strasbourg, France*

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## Prediction of the mixing behaviour in lipid bilayers

Lipid molecules composing biological membranes are very diverse. This raises a number of questions: how do biological membranes take advantage of having such a wide choice at their disposal ? Which physical and chemical properties have driven the evolution of these molecules towards the currently observed ones ? One direction to tackle these issues consists in studying artificial membranes of well defined composition. For instance, ternary mixtures comprising phospholipid and cholesterol have become a model of reference for investigating the formation of domains with specific lipid composition. Our group in Strasbourg (Jean Wolff, Fabrice Thalmann, Carlos Marques) is developing a simple model for understanding and predicting the phase coexistence in binary and ternary systems, starting from the thermodynamic properties of the pure species. A number of experimental problems connected with our model will be mentioned.

You are welcome to meet Dr. Fabrice Thalmann, do not hesitate to contact Christelle Vergnat (softmattergraduate@physik.uni-freiburg.de)