The 2018 Gibbs Award was awarded to Professor John E. Morral for the “fundamental and applied research on topology of phase diagrams and theory of phase equilibria resulting in major advances in the calculation and interpretation of phase equilibria and diffusion.” Upon reflection I cannot think anyone who has been more dedicated to the principles that J. W. Gibbs put forth in his groundbreaking work "On the Equilibrium of Heterogeneous Substances," published in two parts in 1875 and 1878. This work included the famous Gibbs’ phase rule (F = C-P+2 where *F* is the degrees of freedom associated with the equilibrium, *C* is the number of components, and *P* is the number of phases.)

Throughout his distinguished career, Prof. Morral has focused on the application of the Gibbs’ phase rule to a variety of multicomponent phase diagram applications. One of Prof. Morral’s most substantial contributions has been establishing the common topology for all types of multicomponent phases diagrams based on the concepts for zero-phase fraction lines and single-phase boundary lines. These concepts are the basis of some phase diagram software and the power of these multicomponent descriptions is illustrated in the contribution from Decterov and co-workers on the Cu-Fe-O-S-Si-(Al, Ca, Mg) system. More recently Prof. Morral has extended some of these concepts to the developing multicomponent alloy class, high-entropy alloys, as seen in the contribution by Liu in this issue.

Prof. Morral also applied Gibbs’ concepts to improve the understanding of microstructure evolution during multiphase diffusion, by applying the error function solution to the interdiffusion in ternary 2-phase alloys and by identifying “type zero boundaries” and “zigzag” diffusion paths in interdiffusion microstructures. This work formed the foundation for a classification schema to identify boundary types in multicomponent multiphase diffusion microstructures. In particular, this classification schema helped identify the existence of “horns” that could form as a part of the diffusion path at type zero-boundaries and the special conditions that are associated with the corners of tie-triangles and tie-tetrahedrons. Specifically, Prof. Morral determined that *n*-phases could change on crossing a microstructure boundary in an *n*-component isothermal system: extension of the Gibbs phase rule as applied to multicomponent diffusion.

Prof. Morral’s dedication also extends to this journal, *Journal Phase Equilibria and Diffusion (JPED)*, especially after becoming editor in 2012. Prof. Morral has worked tirelessly to maintain the journal quality, all while expanding the audience and impact. Prof. Morral has sought out important papers on the application of thermodynamics and diffusion to industrial problems and recently succeeded in doubling the *JPED* impact factor.

It was written of J. W. Gibbs by his former student, H. A. Bumstead, that he was, “Unassuming in manner, genial and kindly in his intercourse with his fellow-men, never showing impatience or irritation, devoid of personal ambition of the baser sort or of the slightest desire to exalt himself, he went far toward realizing the ideal of the unselfish....” I think the same can be said of Professor Morral. He is a kind and patient teacher, who is always thinking of what is best for the fields of phase equilibria and diffusion. I hope we all can follow the examples J. W. Gibbs and Professor Morral by being kind and patient teachers as we dedicate ourselves to improving the understanding and application of multicomponent thermodynamics and diffusion.

Carelyn E. Campbell