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Mean-field overcharging of macromolecules via charge or surface modulation JONATHAN LANDY, UCLA Physics and Astronomy — It is well known that multivalent counterions can at times overcharge macromolecules in electrolyte solutions. In this talk, I will discuss a simple mean-field mechanism that can allow for this effect: modulation of source charge and/or surface geometry can induce additional charge condensation sometimes resulting in overcharging. The qualitative features of this mechanism will be related to experimental observations. In addition, an experimental method by which one may be able test for modulation effects will be discussed.

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