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Einstein's thesis revisited: the size, geometry, and interactions of nanoparticles a basis for NEMS

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Many of the physics problems of interest to Einstein throughout his career had and continue to have relevance to solid state physics. Einstein's doctoral thesis work, submitted in April 1905, in fact concerned the size, geometry, and interactions of nanoscale particles. These topics are of fundamental relevance to the design, creation, and operation of next-generation nanoelectromechanical systems. I will highlight some interesting problems which, 100 years later, have come full circle.