contraindicated multifunctional materials that combine multiple, technologically desirable functionalities that tend not to coexist. Spaldin is particularly renowned for her development of the class of materials known as multiferroics, which combine simultaneous ferromagnetism and ferroelectricity, and for exploring their application in areas ranging from device physics to cosmology.

Spaldin studied natural sciences at the University of Cambridge, where she obtained her BA degree, received her PhD degree in chemistry at the University of California (UC), Berkeley, and was a postdoctoral researcher in applied physics at Yale University before starting her career in the Materials Department at UC Santa Barbara. Awards include the 2017 Lise Meitner Award of the German and Austrian Physical Societies, the 2017 L'OREAL/UNESCO for Women in Science Award, the 2015 Körber European Science Prize, the 2014 ETH Golden Owl Award for Teaching Excellence, and the 2010 APS McGroddy Prize for New Materials. She is the proud former advisor of this year's Outstanding Young Investigator Award winner, James Rondinelli.

Rondinelli named 2017 MRS Outstanding Young Investigator for work with complex inorganic oxides

James M. Rondinelli, professor of materials and manufacturing at Northwestern University, has been named a 2017 Materials Research Society (MRS) Outstanding Young Investigator. He was cited "for pioneering advances in the theoretical understanding of atomic structure-electronic property relations of complex inorganic oxides in bulk, thin film, and superlattice geometries." He will be presented with the award at the 2017 MRS Spring Meeting in Phoenix, Ariz.

Transition-metal oxides offer a platform for electronics owing to the phenomena they offer, including ferroic functionality, correlated-electron behavior, and coexisting contraindicated properties. Because of the sensitivity of their properties on local as well as crystal structure and composition, picoscale structure–property relationships are necessary to design function. In his presentation, Rondinelli will provide an overview of the progress in identifying these relationships and finding new phases through quantum mechanical approaches combined with multiple materials theory methods.

Although large epitaxial strains are believed to induce ferroelectricity, biaxial strain induces an unforeseen polar-to-nonpolar transition in (001) thin films of $Ca_3Ti_2O_7$ (n = 2) at experimentally accessible biaxial compressive and tensile strains owing to strain-tunable BO_6 octahedral rotation modes. He will describe how to use local electrostatic interactions among atomic metal-monoxide planes (AO and A'O) to induce differential bond distortions for electronic control. Older complex oxides, which are now understood to exhibit nontrivial lattice mode anharmonicities, offer a plentiful playground for realizing new functionalities with both static and dynamic fields in thin-film and bulk form.

Rondinelli received a BS degree in materials science and engineering from Northwestern University and a PhD degree from the University of California, Santa Barbara. He is currently the Morris E. Fine Junior Professor in Materials and Manufacturing at Northwestern University in the Materials Science and Engineering Department, where he leads the Materials Theory and Design Group. His interests include electronic structure theory and first-principles design of functional inorganic materials using atomic-scale structure–property relationships. In 2016, he received a Sloan Research Fellowship in Physics, the Presidential Early Career Award for Scientists and Engineers, and the 3M Non-Tenured Faculty Award.

Rondinelli has co-authored more than 100 peer-reviewed publications and is a member of the American Physical Society, American Chemical Society, The Minerals, Metals and Materials Society, The American Ceramic Society, and MRS. He serves as an editorial board member of the *Journal of Physics: Condensed Matter* and *npj Computational Materials*.