1077-N5-1078 **Robert Kantrowitz*** (rkantrow@hamilton.edu), Department of Mathematics, Hamilton College, 198 College Hill Road, Clinton, NY 13323, and **Michael Schramm**. *When absolute convergence fails to imply convergence.* Preliminary report.

If a series of real numbers converges absolutely, then it converges. The usual proof invokes completeness in the form of the Cauchy criterion. Absent completeness, the result is false, but examples of series of rational numbers that illustrate this point are sometimes elusive to students. In this talk, we provide several such examples and, in their construction, other concepts from undergraduate real analysis emerge, including a cameo appearance by the Cantor set. (Received September 16, 2011)