Realizing the full potential of a RITA spectrometer

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The ‘re-invented triple-axis spectrometer (RITA) concept has existed for a decade. Recent developments at RITA-2 at PSI, have revealed more of the potential of this instrument class. We demonstrate the performance of the multi-blade imaging mode, which has been applied e.g. to studies of dispersion relations and emphasize the power of this mode in combination with the low background of RITA-2. In addition, we present other ways of utilizing the position sensitive detector in a RITA instrument. Simulations of a planned upgrade of the guide-monochromator system at RITA-2 have shown a potential to increase the flux at the sample position by a factor 5.

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