

QRGB

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The work on QRGB Service has been motivated by scientific necessity (primarily of local scientific community) of running various simulations (in cluster/Grid environments), whose results are often greatly affected by quality (distribution, nondeterminism, entropy, etc.) of used random numbers. Since true random numbers are impossible to generate with a finite state machine (such as today's computers), scientists are forced to either use specialized expensive hardware number generators, or, more frequently, to content themselves with suboptimal solutions (like pseudo-random numbers generators). By using the hardware Quantum Random Bit Generator (see: <http://qrbg.irb.hr/>) developed at the Rudjer Boshkovich Institute in Zagreb, Croatia, the QRGB Service enables, inter alias, the VEPPAR framework to be used in situations where real (not pseudo-random) randomness, i.e. haphazardness, is necessary or important for the quality of computer based experiments. The QRGB service is integrated through the Virtue Processor. See: <http://random.irb.hr/>.