

**GAN Oriented Experiments**

Host Lab	Experiment	Timescale	Goals	Collaboration	Benefits	Limitations	Requirements	Controls	Cost	Contact	Status
JLab	Observing JLab SRF operation	Now	Gaining expertise	LANL, SNS	Prepares SNS commissioning	Limited SNS operation	Console at remote site	All sites use EPICS	\$	Andrew Hutton, TJNAF, John Galambos, ORNL	Approved
JLab	SNS SRF pre-commissioning	6 months-2 years	Evaluating SRF cavity performance	LANL, SNS	Limits travel, larger number of interested parties can check on cavity performance	Hardware commissioning	Console at remote site	All sites use EPICS	\$	Andrew Hutton, TJNAF, John Galambos, ORNL	Proposed
SNS	SNS SRF Commissioning	Two years	Assisting SRF Commissioning	LANL, JLab	Limits travel, larger number of interested parties can check on SRF performance	Hardware commissioning	Console at remote site	All sites use EPICS	\$	Andrew Hutton, TJNAF, John Galambos, ORNL	Proposed
RHIC	Integrated accelerator control	Now	operate from MCR (main control room) part of the complex not yet remotely operated (experimental magnets, polarimeters, Tandem, instrumentation houses)	BNL	improve ops, test videoconferencing between 2 control rooms (RHIC, Tandem)	1 lab	on-site videoconferencing	RHIC Controls	\$	Fulvia Pilat, BNL	Approved
RHIC	IR linear corrections	6 months-2 years	test remote operation of beam study from another lab	BNL, FNAL	test remote operation of beam study from another lab	Experiment, not full operations	exporting RHIC apps to FNAL, e-logs, headsets for 2 at FNAL and 2 at BNL	RHIC Controls	\$	Fulvia Pilat, BNL	Proposed
RHIC	Coherent beam-beam interactions	6 months-2 years	test remote operation of beam study from another lab	BNL, FNAL	test remote operation of beam study from another lab	Experiment, not full operations	exporting RHIC apps to FNAL, e-logs, headsets for 2 at FNAL and 2 at BNL	RHIC Controls	\$	Fulvia Pilat, BNL	Proposed
RHIC	IR non-linear corrections	6 months-2 years	test remote operation of beam study from another lab	BNL, CERN	test remote operation of beam study from another lab	Experiment, not full operations	exporting RHIC apps to CERN, e-logs, headsets for 2 at BNL and 1 at CERN	RHIC Controls	\$	Fulvia Pilat, BNL	Proposed
RHIC	chromaticity via RF phase modulation	6 months-2 years	test remote operation of beam study from another lab	BNL, CERN	test remote operation of beam study from another lab	Experiment, not full operations	exporting RHIC apps to CERN, e-logs, headsets for 2 at BNL and 1 at CERN	RHIC Controls	\$	Fulvia Pilat, BNL	Proposed

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RHIC	PLL and tune feedback operations	1-2 years	remote diagnosis, testing, and operation of RHIC PLL+D24	BNL, CERN	remote operation and distributed expertise within the labs	Operation, but limited subset	exporting RHIC apps to CERN, e-logs, headsets for 2 at BNL and 1 at CERN, PLL hardware modifications	RHIC Controls	\$	Fulvia Pilat, BNL	Proposed
SNS	SNS ring commissioning	3-4 years	remote participation in SNS commissioning	BNL, ORNL	test of ring operations remotely	control and responsibility still on-site	virtual SNS control room at BNL	EPICS	\$\$	John Galambos, ORNL	Proposed
LHC	LHC Commissioning	5-6 years	remote participation LHC machine development	CERN, BNL, LBNL, FNAL	test of multi-lab connectivity	control and responsibility still on-site	virtual LHC control rooms	LHC controls	\$\$	Steve Peggs, BNL	Proposed
TTF-II	TTF DAQ	now-2 years	Test collaborative tools	DESY, Cornell, Ohio State, University of Michigan	Gain experience in using collaborative tools	Experiment, not full operations	interface to existing hardware	DOOCS (DESY)	\$	Klaus Honscheid, OSU, Tim Wilksen, Cornell	Proposed to NSF
TTF-II	Emittance studies	2003-2005	Remote machine shifts	DESY, Cornell, Ohio State, University of Michigan	Experience in remote operations	Experiment, not full operations		DOOCS (DESY)	\$	Klaus Honscheid, OSU, Tim Wilksen, Cornell	Future proposal
SPS	Luminosity monitor	2005	Tune and optimize luminosity	CERN, LBNL	Demonstrate remote operation and debugging, limit travel, maximize commissioning time	Hardware specific	videoconferencing, access to e-log	homebrew	\$	Bill Turner, LBNL	Proposed
SPS	Longitudinal bunch density monitor	2005	monitor the abort gap residual intensity, and to look for injected beam particles that are not captured by the rf system	CERN, LBNL	Demonstrate remote operation and debugging, limit travel, maximize commissioning time	Hardware specific	videoconferencing, access to e-log	homebrew	\$	Bill Turner, LBNL	Proposed
DESY	Distributed Information management	After approval: Phase - I (TTF-II) end of 2002 -2004		DESY, BESSY, CEA Saclay	While it is designed for TESLA it can be used in many other places.	software development project			\$\$	Axel Lindner, DESY	Futruce proposal to EU
DESY	Collaborative framework	After approval: 6 months analysis, 6 months evaluation, two years implementation	Prepare the basic GAN toolkit	DESY	Prepare basic GAN toolkit	software development project			\$\$	Axel Lindner, DESY	Futruce proposal to EU

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GAN	Evaluation of different data paths for GAN remote operations. I.e. X-Windows, CORBA, CA/TINE...	Next workshop		GAN Working Group	Gather information for future decisions on: network protocols, security, application distribution and program development	Collect information from previous remote operations sessions.					
ATF	Data acquisition of beam based alignment data and analysis	Ongoing-1 year	Improve damping ring performance	KEK, SLAC	Testing remote commissioning	Very limited operations	Telephone and console	MATLAB, V-System	<\$	Marc Ross, SLAC, J. Urakawa	Ongoing
CMS	Virtual Control Room	1-2 years	Collaboratory environment	CMS, FERMLAB	Reduce travel, increases participation	Distance and latency	Realtime videoconferencing ability	CMS	\$\$	Umesh Joshi, FNAL	Proposed
CLEO	Remote shifting	ongoing	gain experience in GAN	Cornell	Reduce travel, increases participation	Monitoring only	Videoconferencing and remote applications	CLEO	<\$	Tim Wilksen, Cornell	Ongoing
Peet's	Virtual Coffee Klatch	6 months	distance collaboration	PSI, TJNAF, LBNL, BNL, ORNL, KEK		Can't smell the coffee	Experience with videoconferencing		<\$	Steve Hunt, PSI	RSN