



# Verbundforschung in der Physik der kleinsten Teilchen

## Monday 07 September 2020

### Kurzvorstellung der Projektvorschläge der Universitäten (14:00-15:09)

time	[id] title	presenter
14:00	[41] TOSCA	WENSKAT, Marc
14:03	[42] Individually recirculating ERLs and SRF technology	Dr ARNOLD, Michaela
14:06	[43] Superconducting Cavities for Accelerators and Axion Searches	Prof. HUG, Florian
14:09	[44] Development of (high-temperature) superconducting radio frequency cavities and their performance in high magnetic fields	GOLM, Jessica
14:12	[82] Eigenanalysis of SC cavities	DE GERSEM, Herbert
14:15	[83] Modelling, simulation and optimisation of superconducting magnets	DE GERSEM, Herbert
14:18	[84] Electromagnetic fields affected by vibrations and deformations	DE GERSEM, Herbert
14:21	[45] Damage limits of superconducting magnets	Dr DANIEL, Wollmann
14:24	[46] Damage Limits of Superconducting Magnets due to instantaneous beam impact	BERNHARD, Axel
14:27	[47] High Temperature Superconductor Accelerator Magnets and Wigglers	BERNHARD, Axel
14:30	[48] Development of sc CH-cavities	Prof. PODLECH, Holger
14:33	[49] GSI HLI Upgrade	Prof. PODLECH, Holger
14:36	[50] Development of Space Charge Lenses for Low Energy Hadron Beams	Prof. PODLECH, Holger
14:39	[74] High Field Cavity Development at 325 MHz	RATZINGER, Ulrich
14:42	[51] Radio Frequency Quadrupole Accelerator Developments	BARTH, Winfried
14:45	[52] SRF-cavity development	BARTH, Winfried
14:48	[53] (Heavy) Ion Beam Transport Systems & Advanced Beam Dynamics Code Development	BARTH, Winfried
14:51	[71] Future Circular Collider Study - Status, Plans and Opportunities	ZIMMERMANN, Frank
14:54	[79] Accurate impedance computation and optimization for large accelerator structures	Dr GJONAJ, Erion
14:57	[80] Beam dynamics and synchrotron radiation effects in bunch compressors and undulators	Dr GJONAJ, Erion
15:00	[54] Visualizing the wakefields @ AWAKE	Dr GOPAL, Amrutha
15:03	[55] Laser-induced acceleration of polarized 3-He ions and injection into a conventional accelerator	PUKHOV, Alexander
15:06	[56] Development of Plasma Sources for Acceleration and Focusing in Future Lepton Colliders	LOISCH, Gregor

### Kurzvorstellung der Projektvorschläge der Universitäten (15:40-16:43)

time	[id] title	presenter
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15:40	[57] LIGHT@GSI: Initial focusing concepts and towards synchrotron injection	Dr BOINE-FRANKENHEIM, Oliver
15:43	[58] Fast prediction of beam quality and losses for intense ion beams in synchrotrons	Dr BOINE-FRANKENHEIM, Oliver
15:46	[59] Accurate and fast field descriptions inside beam pipes of arbitrary geometry	Dr BOINE-FRANKENHEIM, Oliver
15:49	[60] Measurement and optimisation of the spill structure from slow extraction	Dr BOINE-FRANKENHEIM, Oliver
15:52	[78] SIS100 laser cooling facility	Dr WINTERS, Danyal
15:55	[61] Machine learning applied to accelerator controls	Prof. KHAN, Shaukat
15:58	[62] Machine learning for machine protection	APOLLONIO, Andrea
16:01	[63] Machine learning applications	BRÜNDERMANN, Erik
16:04	[72] Pulsed power modulators	Prof. MÜLLER, Georg
16:07	[65] Energy efficiency for accelerator systems	Prof. GROHMANN, Steffen
16:10	[64] Beam diagnostics for colliders	Dr NIEHUES, Gudrun
16:13	[66] Non-Destructive Diagnosis of Intense Particle Beams	MEUSEL, Oliver
16:16	[67] Nächste Generation von Cryo-Strom-Comperatoren	Prof. STÖHLKER, Thomas
16:19	[75] THz Detectors	Prof. PENIRSCHKE, Andreas
16:22	[76] 3D printed RF Sensors	Prof. PENIRSCHKE, Andreas
16:25	[68] Possible research topics at Rostock University	Mr GORGI ZADEH, Shahnam
16:28	[69] Effizienter Beschleunigerbetrieb: Quellen für zukünftige Beschleuniger höchster Intensität und Energie	MOORTGAT-PICK, Gudrid
16:31	[77] XAI-assisted Machine Protection for Particle Accelerators	Prof. MÜLLER, Andreas
16:34	[73] Development of compact accelerators	Mr HÄHNEL, Hendrik
16:37	[70] International Muon Collider Study	Dr SCHULTE, Daniel
16:40	[85] Bunch profile measurement using transition radiation	SCHWICKERT, Marcus