

2025 가속기 여름학교

포항공대 연합체(미래기반 가속기 전문인력 양성 사업단)
고려대(세종) 연합체(가속기 및 빔라인 미래인재양성 사업단)

후원: 과학기술정보통신부, 한국연구재단, 포항가속기연구소



<http://indico.risp.re.kr/indico/event/kopas2014>

Korea Particle Accelerator School (KOPAS 2014)

제2회 국제가속기학교

August 4 (Mon) - 8 (Fri), 2014
2014년 8월 4일(월) ~ 8월 8일(금)
등록마감 : 2014년 7월 4일(금) 18:00

Venue : Korea University Sejong Campus
장소 : 고려대학교 세종캠퍼스

Lecturer

 Dr. Mei Bai BNL, USA	 Prof. Young-Kee Kim Chicago Univ. USA	 Prof. Kwang-Je Kim Univ. of Chicago ANL, USA	 Prof. William A. Barletta Director, USPAS MIT, JICA & ORNL
-----------------------------	--	--	--

8.4	8.5	8.6	8.7	8.8
- Introduction - Phase space and emittance (Mei Bai) - RF cavities (Mei Bai) - RF synchronism & longitudinal phase space (Kwang-Je Kim) - Beam properties (William A. Barletta) - Tutorial problems	- Phase space and emittance (Mei Bai) - RF cavities (Mei Bai) - RF synchronism & longitudinal phase space (Kwang-Je Kim) - Linear accelerators (William A. Barletta) - Tutorial problems	- Beam loading & wakefields (Kwang-Je Kim) - Introduction to BADA - Linear optics (Mei Bai) - Storage rings (Mei Bai) - Tutorial problems	- Orbit dynamics (Mei Bai) - Limiting phenomena (William A. Barletta) - Synchrotron radiation (Kwang-Je Kim) - Light sources (Kwang-Je Kim) - Tutorial problems	- Free electron lasers (Kwang-Je Kim) - Cyclotrons (William A. Barletta) - Accelerator technologies - Beam perspective & special applications

이제부터는 한국 입자가속기학회(KAS)가 주관하는 행사입니다.
(The 1st KAS 10th anniversary celebration of KOPAS 2014)
주최: 한국 입자가속기학회(KAS)

ibS 기초과학연구원 Institute for Basic Science | U.S. Particle Accelerator School | 미래창조과학부 Ministry of Science, ICT and Future Planning | 국제과학비즈니스벨트 INTERNATIONAL SCIENCE & BUSINESS BELT

문의: ibS 중이온가속기건설구속사업단 Tel : +82-42-878-8857 / E-mail : kopas@ibs.re.kr

Learn more about KoPAS

Korea Particle Accelerator School (KoPAS 2015)

제3회 국제가속기학교

July 28(Tue) - 31(Fri), 2015
2015년 7월 28일(화) - 31일(금)

Venue : Institute for Basic Science(IFS), Daejeon
장소 : 대전 기초과학연구원

Organizing Committee

- Dr. Sunchan Jeong (Director, IBS/IFS, Korea)
- Dr. Dong O Jeon (IFS/IFS, Korea)
- Prof. Do-Won Kim (Kangnung N. Univ., Korea)
- Prof. William A. Barletta (USPAS/MIT, USA)
- Prof. Young-Kee Kim (Univ. of Chicago, USA)

Lecturers

 Prof. Jean Delaunay Orsay University / CEA	 Dr. John Byrd UNL / NSF	 Dr. Yujong Kim KAERI	 Prof. Moses Chung UNIST
---	--------------------------------	-----------------------------	--------------------------------

7.28	7.29	7.30	7.31
Introduction to Accelerator Physics - Basics of Electromagnetism, Dynamics and Relativity - Transverse Linear Optics, Phase Space, Betatron Oscillation - Transverse Emittance & Transverse Beam Parameters	Introduction to Accelerator Physics - Basics of RF System - Basics of RF Cavity - Longitudinal Phase Space, Synchrotron Oscillation & Longitudinal Beam Parameters - Lattice Design and Transverse & Longitudinal Beam Dynamics	Focus Topics - Space-charge Effects - Basics of Instabilities - Basics of Superconducting RF Cavity	Focus Topics - Basics of Synchrotron Radiation - Basics of Beam Diagnostics

There is no registration fee to all participants.
Deadline of registration : July 17, 2015

The schedules for 'Focus Topics' are TENTATIVE.
http://indico.iqsc.kr/indico/event/kopas2015

ibS 기초과학연구원 Institute for Basic Science | U.S. Particle Accelerator School | 미래창조과학부 Ministry of Science, ICT and Future Planning | 국제과학비즈니스벨트 INTERNATIONAL SCIENCE & BUSINESS BELT

문의: ibS 중이온가속기건설구속사업단 Tel : +82-42-878-8857 / E-mail : kopas@ibs.re.kr

The 5th Korea Particle Accelerator School (KoPAS)

Jul 10 – 14, 2017
Korea University Sejong Campus
Asia/Seoul timezone

Enter your search term

Overview

The Korea Particle Accelerator School (KoPAS 2017) will be held in Korea University Sejong Campus in Sejong, Republic of Korea, from July 10 to 14, 2017.

Registration

The program plans to focus on specific topics about **Beam Physics, Superconducting cavity, RF Systems and Beam Diagnostics**, and some **special lectures**.

List of Registrants

There will be four intensive courses and four introductory sessions to encourage participation of both prospective students and researchers, who plan to study or work in the field related to accelerators, and to provide them necessary background in accelerator science and nuclear physics. Lecturers have been organized with prominent experts from research institutes and universities.

Programme

Timetable

Transportation

Campus Info.

?

2024년 부터 두 인력양성 사업단 공동으로 운영

포항공대 컨소시움



고려대(세종) 컨소시움



History of CAS

Resources about CAS history

Course pattern

Basic course

History of CAS

The CERN Accelerator School [was established](#) and transmitting knowledge accumulated This provided a framework for a series of c field.

since1983

Program for the 2025 CAS - Intensity Limitations in Hadron Beams																			
	Sun 15/06	Mon 16/06	Tue 17/06	Wed 18/06	Thu 19/06	Fri 20/06	Sat 21/06	Sun 22/06	Mon 23/06	Tue 24/06	Wed 25/06	Thu 26/06	Fri 27/06						
08:30	Arrival day and registration	Opening / Local presentation	Bench Measurements and Simulations of Beam Coupling Impedance	High-Intensity linac beam-dynamics	Transverse HI ring beam-instabilities + mitigations I	Intrabeam Scattering	Excursion	Numerical methods in high-intensity rings	RFQ + Cavities (NC + SC)	Free study time	Beam Intercepting devices	HI radioactive ion beams	Departure day						
		Tecker et al.	A. Mostacci (Univ.Rome)	A. Lombardi	X. Buffat	A. Wolski (Liverpool U.)		A. Lasheen	C. Plostinar (ESS)		A. Perillo Marcone	T. Stora							
09:30		Introduction and demands for high intensity	Lattice design for high intensity rings	Numerical methods in high-intensity linacs	Cyclotrons	Beam-Beam Effects in Hadron Colliders		Particle Matter interaction	Beam Based Impedance Measurements		Injection, Extraction II	Operation + Maintenance issues							
09:40														Y. Papaphilippou	Y. Papaphilippou	E. Laface (ESS)	M. Seidel (PSI)	X. Buffat	G. Lerner
10:40		Coffee						Coffee											
11:10		Frontiers for linear machines	Space Charge Effects in Linacs	Linac Instabilities + mitigations	Transverse HI ring beam-instabilities + mitigations II	FFAs		Cryogenics	RF design for high-intensity		Ions	Cooling of high-intensity beams							
		M.Eshraqi (ESS)	E. Laface (ESS)	A. Lombardi	X. Buffat	M. Seidel (PSI)		B. Bradu	C. Plostinar (ESS)		M. Steck (GSI)	M. Steck (GSI)							
12:15		Lunch		Space Charge in Circular Machines	Lunch			Lunch											
13:20				F. Asvesta															
13:45		Frontiers for circular machines	Sources and Low Energy Beam Transfer	Lunch	Diagnostics in High Intensity Beams I	Longitudinal HI ring beam-instabilities + mitigations I		Beam loss Mechanisms + Machine Protection	Case studies	Collimation	Case studies	Hadron Colliders							
		C. Rogers (ISIS)	D.Faircloth (ISIS)							P. Forck (GSI)				I. Karpov	A. Nordt (ESS)	N. Fuster (IFIC)	M. Zerlauth		
14:45				Free study time	Electron Cloud	Sustainability for High-Intensity Machines		Beam Loss consequences	Case studies	Vacuum Issues	HI for Accelerator Driven Systems								
14:55		Wakefields and Impedances I	Neutron Sources							L. Methner		M.Seidel (PSI)		G. Lerner	Coffee	S. Calatroni	Coffee	U. Dorda (SCK CEN)	
15:45		A. Mostacci (Univ.Rome)	M. Eshraqi (ESS)							Coffee		Coffee		Coffee	Coffee	Coffee			
16:00										Wakefields and Impedances II		Longitudinal HI ring beam-instabilities + mitigations II		Beam Loading	Case studies	Injection, Extraction I	Case studies	Closing	
16:30		A. Mostacci (Univ.Rome)	C. Rogers (ISIS)							Diagnostics in High Intensity Beams II									I. Karpov
17:30		1 slide 1 minute	Poster session			CST installation check		Case study Introduction	Case study Introduction										
17:50																			
18:15																			
18:45	>Welcome reception																		
20:00	Dinner at Hotel											Banquet	v2.5						
21:00									Cinema event										



U.S. Particle Accelerator School

America's National School of Accelerator Science and Technology

[Home](#) [About](#) [Programs](#) [Courses, Materials & Instructors](#) [Resources](#) [Opportunities](#) [Photos](#) [Contact](#)

Classical Mechanics and Electromagnetism in Accelerator Physics

Sponsoring University:
Northern Illinois University

Course Name:
Classical Mechanics and Electromagnetism in Accelerator Physics
This class is full.

Instructors:
Xiaobiao Huang, SLAC; Jeffrey Eldred, Fermilab (remote); Yongjun Li, Brookhaven National Lab; Steve Lund, Michigan State University/USPAS
TA: Yi-Kai Kan, Brookhaven National Lab

Programs

[Current Program](#)

[Next Program](#)

[IU/USPAS Master's Degree](#)

[USPAS-Affiliated
University Credits](#)

USPAS Collaboration

[Argonne National Laboratory](#)

[Brookhaven National Laboratory](#)

[Cornell University](#)

[Fermi National Accelerator Laboratory](#)

[Lawrence Berkeley National Laboratory](#)

[Los Alamos National Laboratory](#)

[Michigan State University](#)

[Oak Ridge National Laboratory](#)

[SLAC National Accelerator Laboratory](#)

[Thomas Jefferson National Accelerator Facility](#)

Symposium-style schools (1981-1989)

University-style schools (since 1987)

Reading Requirements

(to be provided by the USPAS) Gennady Stupakov and Greg Penn, *Classical Mechanics and Electromagnetism in Accelerator Physics*, 1st edition, (Springer, 2018).

Course Web Site

A course **web site** will be maintained for distribution of course materials including: lecture notes, problems sets, and, if possible, recordings of lecture streams.

Credit Requirements

Students will be evaluated based on performance in the **final take-home exam (30% of the final grade)**, and the **homework assignments (70% of the final grade)**.



IOP Concise Physics | A Morgan & Claypool Publication

Introduction to Beam Dynamics in High-Energy Electron Storage Rings

Andrzej Wolski



IOP ebooks





교시 (시간)	월 (8월 4일)	화 (8월 5일)	수 (8월 6일)	목 (8월 7일)	금 (8월 8일)
1 (9:30~10:45)	등교	2장 Linear Optics	3장 Synchrotron Radiation	2장 Linear Optics	5장 Collective Effects
2 (11:00~12:15)		2장 Linear Optics	3장 Synchrotron Radiation	2장 Linear Optics	5장 Collective Effects
점심시간 (12:15~1:30)	등록	점심 (과학관 식당)			수료식 설문조사
	오리엔테이션 사진 촬영				귀가
3 (1:30~2:45)	1장 Introduction	2장 Linear Optics	4장 Nonlinear Dynamics	5장 Collective Effects	
4 (3:00~4:15)	1장 Introduction	3장 Synchrotron Radiation	4장 Nonlinear Dynamics	5장 Collective Effects	
5 (4:30~5:45)	2장 Linear Optics	3장 Synchrotron Radiation	4장 Nonlinear Dynamics	5장 Collective Effects	
저녁시간 (5:45~7:00)	저녁 (과학관 식당)				
연습 1 (7:00~8:15)	Reception (통나무집)	Homework 및 조교 연습 (과학관 3층)			
연습 2 (8:30~10:00)					

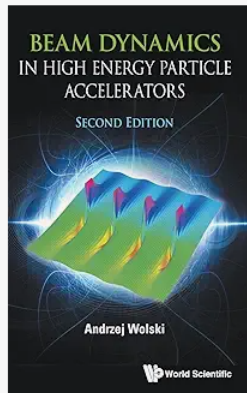


[수료증 및 시상]

-숙제: 화/수/목 수업 내용을 중심으로 세 개의 숙제(각 5 문제 정도)가 나갈 예정임. 혼자서 해도 되고, 연습시간에 조교의 도움을 받아서 해도 되며, 다음날 아침 수업 전까지 제출해야 함. (온라인 제출도 가능)

-수료증: 숙제를 다 제출한 학생에 대해서만 수료증(온라인) 발급 예정.

-시상: 숙제 성적 우수자 4명에게는 상품 수여 예정. (Andy Wolski 교수님의 두꺼운 hardcover 교과서: USD 178\$)



Beam Dynamics in High Energy Particle Accelerators (Second Edition)

by Andrzej Wolski | Jun 23, 2023

Hardcover

\$178⁰⁰

FREE delivery to Republic of Korea

Add to cart

More Buying Choices

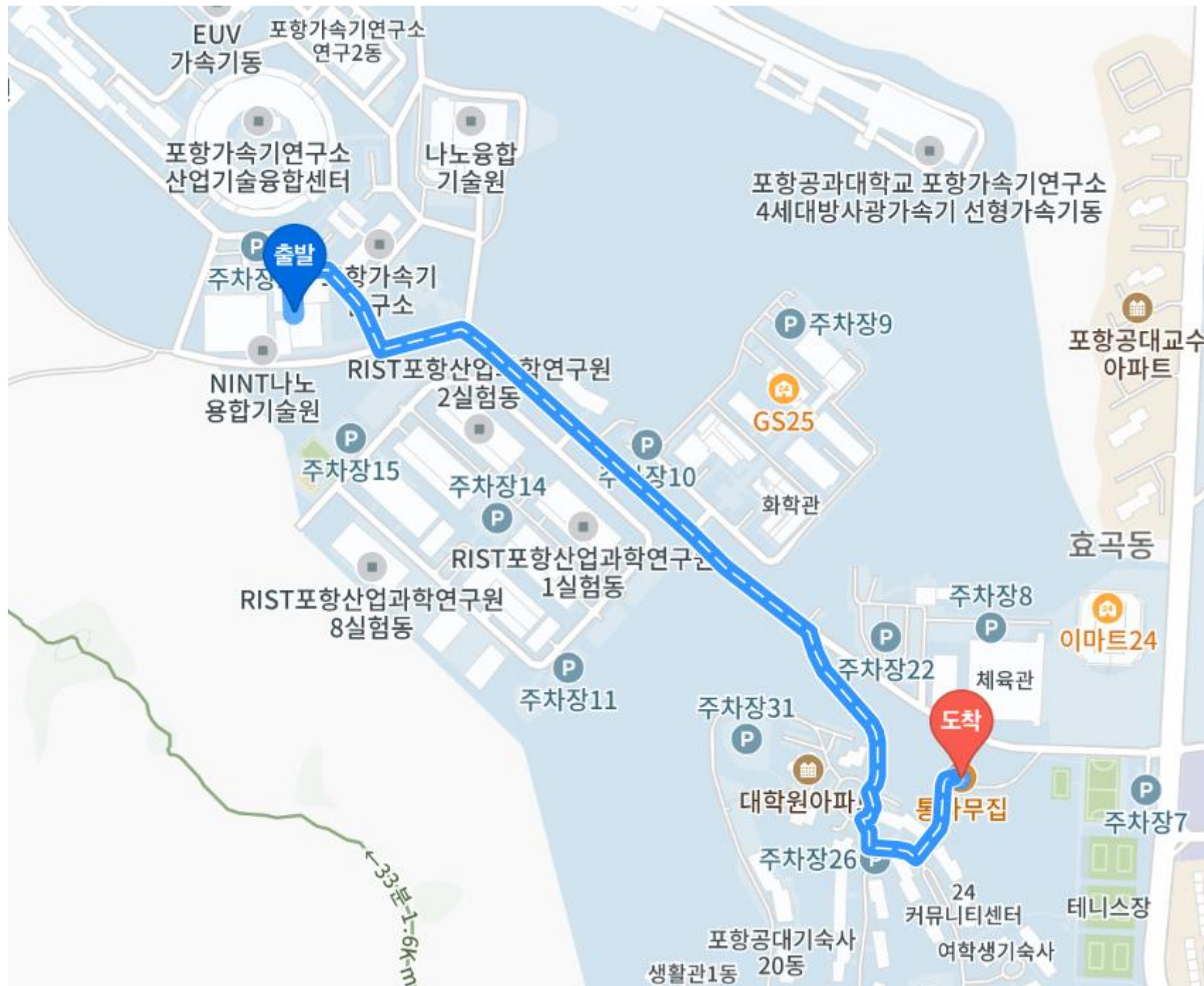
\$157.31 (3 used & new offers)

Kindle

\$142⁰⁰ Print List Price: \$178.00

Available instantly

Reception 및 야식



무료: 다만,
“ATE” 라고 주
문 시 이야기해
주세요.

통집 메뉴판

(Log cabin Menu)

OPNE 18:00
CLOSE 02:00
Last order : 01:30

TEL. 054-279-3860
*영업일:월~토 (공휴일 휴무)
*문의가능시간:17:00~25:30



통집닭 (한마리)
11,000원
Grilled whole chicken
통집닭 (반마리)
5,500원
Grilled whole chicken (half)



허니버터감자튀김
5,000원
(Honey butter
deep-fried
potatoes)



돼지껍데기볶음
7,900원
(Stir-fried Pork
Rinds)



감자채전
5,000원
(Potato pancake)



매콤닭 (한마리)
14,000원
Grilled whole chicken (spicy)
매콤닭 (반마리)
7,000원
Grilled whole chicken (half/spicy)



통치즈돈까스
9,500원
(cheese pork cutlet)



오코노미야끼
9,900원
(cabbage pancake)



해물파전
6,500원
(Seafood and green
onion pancake)



모짜통닭 (한마리)
14,000원
Grilled whole chicken (cheese)
모짜통닭 (반마리)
7,000원
Grilled whole chicken (half/cheese)



통오징어 가파라게
11,900원
(Deep-fried Squid)



숯불무뼈닭발
12,900원
(Spicy Grilled
Boneless Chicken's
Feet)



얼큰굴뱅이탕
10,900원
(Spicy Sea Snail
Soup)



어묵탕
9,900원
(Fishcake soup)



통새우 가파라게
6,900원
(Deep-fried shrimp)



치즈나초칩
4,000원
(Cheese Seasoning
Nacho Chips)



매콤닭볶음탕
15,900원
(Spicy Braised
Chicken)



짬뽕탕
11,900원
(Spicy seafood soup)



치즈볼
5,900원
(cheese ball)



파인샤베
6,500원
(Pineapple
sherbet)



국물떡볶이
5,900원
(Tteokbokki in sauce)



떡태구이
9,000원
(Grilled dried
pollack)



메론샤베
7,500원
(Melon Sherbet)

사진 촬영: 대충 아래 사진의 분위기로...

