# Synchrotron radiation

## R. Bartolini

John Adams Institute for Accelerator Science, University of Oxford

and

**Diamond Light Source** 





2017	Jan 30 <sup>th</sup>	Tuesday Jan 31 <sup>st</sup>	Wednesday Feb 1 <sup>st</sup>	Thursday Feb 2 <sup>nd</sup>	Friday Feb 3 <sup>rd</sup>
09:00					
03.00	Synchrotron Radiation lecture	Synchrotron Radiation lecture	Linear imperfections lecture	Mini-workshop Machine Design	Non-linear effects lecture
10:00 10:15	R. Bartolini	R. Bartolini	H. Bartosik	Ph. Bryant	Y. Papaphilippou
	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
	Synchrotron Radiation lecture	Synchrotron Radiation lecture	Linear imperfections lecture	Mini-workshop Machine Design	Non-linear effects lecture
11:15	R. Bartolini	R. Bartolini	H. Bartosik	Ph. Bryant	Y. Papaphilippou
	Synchrotron Radiation tutorial	Synchrotron Radiation tutorial	Linear imperfections lecture	Mini-workshop Machine Design	Non-linear effects lecture
12:15	R. Bartolini	R. Bartolini	H. Bartosik	Ph. Bryant	Y. Papaphilippou
	WELCOME LUNCH OFFERED BY ESI	BREAK	BREAK	BREAK	BREAK
14:00	Synchrotron Radiation lecture	Synchrotron Radiation lecture	Linear imperfections lecture	Mini-workshop Machine Design	Non-linear effects lecture
15:00	R. Bartolini	R. Bartolini	H. Bartosik	R. Bartolini	Y. Papaphilippou
	Synchrotron Radiation lecture	Synchrotron Radiation lecture	Linear imperfections lecture	Mini-workshop Machine Design	Presentation of Accelerator Design
16:00 16:15	R. Bartolini	R. Bartolini	H. Bartosik	R. Bartolini	Students + P. Bryant
	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
	Synchrotron Radiation lecture	Synchrotron Radiation tutorial	Linear imperfections tutorial	Mini-workshop Machine Design	Presentation of Light Source Design
17:15	R. Bartolini	R. Bartolini	H. Bartosik	R. Bartolini	Students + R. Bartolini
18:15			Laser Plasma Acceleration Seminar R. Assmann		

# plan

#### 9 lectures

part 1: synchrotron radiation ~ 5h

part 2: beam dynamics with synchrotron radiation ~ 4h

#### 3 tutorials

based on the solutions of the exam sheets assigned in previous years
\*\*\* volunteers \*\*\* will be encouraged

### 3+1h machine design

the project consist in designing of an upgrade of a storage ring light from a second generation to a third generation light sources working groups of 5-6 people 1-2 \*\*\* volunteers \*\*\* will report on Friday afternoon