List of Abbreviations

3DCRT	three dimensional conformal radiotherapy
4DCT	time resolved computed tomography
AF	atrial fibrillation
AP	anterior-posterior
AV	atrioventricular
CNAO	centro nazionale di adroterapia oncologica
COPD	chronic obstructive pulmonary disease
CT	computed tomography
CTV	clinical target volume
CTI	cavotricuspid isthmus
D5-D95	measure for dose homogeneity
DKFZ	German cancer research center
DSB	double strand breaks
DVH	dose volume histogram
ECG	Electrocardiograph
FWHM	full width at half maximum
GSI	GSI Helmholtzzentrum für Schwerionenforschung GmbH
GTV	gross tumor volume
GyE	Gray equivalent
HIT	Heidelberg Ion-Beam Therapy Centre
HU	Hounsfield unit
IES	iso-energy slice
IM	internal margin
IMPT	intensity modulated particle therapy
IMPT(OAR)	IMPT with included OAR
IMRT	intensity modulated radiotherapy
IPV	inferior pulmonary vein
ITV	internal target volume
IVC	inferior vena cava
LA	left atrium
LAA	left atrial appendage
LCA	left coronary artery
LEM	local effect model
LET	linear energy transfer
LR	left-right
LV	left ventricle
MDACC	MD Anderson Cancer Center
MLC	multileaf collimators
MP	motion phase
MRI	magnetic resonance imaging
NIRS	National Institute of Radiological Sciences
OAR	organ at risk
PET	positron emission tomography
PMMA	polymethyl methacrylate
PSI	Paul Scherer Institut
PTV	planning target volume
PV	pulmonary vein
RA	right atrium
RBE	relative biological effectiveness
RCA	right coronary artery
RV	right ventricle
SA	sinoatrial
SI	superior-inferior
SOBP	spread out Bragg peak
SSB	single strand break
SVC	superior vena cava
TRiP	treatment planning for carbon ion radiotherapy
V95	measure for dose coverage
V107	measure of over dosage