

# References for QFT III

## Chap 1: QFT in curved spaces and semiclassical approximation

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- Birrel and Davis, "Quantum fields in curved space"
- Komargodski - Schwimmer, 1107.3987
- Vassilievich "Heat Kernel expansion: user's manual", hep-th/0306138
- P. Ramond "Field Theory, A modern primer"

## Chap 2: basics on defects in CFT

- A. Kapustin 0501015 "Wilson-'t Hooft operators in 4D gauge theories and S-duality"
- Billo', Goncalves, Lauria, Meineri, 1601.02883 "Defects in CFT"

## Chap 3: EM duality in 4d Maxwell theory

- "T-duality in higher genus", Polchinski's book
- S-duality in Maxwell – Witten 9505186
- Line operators – Kapustin 0501015
- Surface operators – Gukov-Witten 0612073 (sez 2)
- Boundary CFT3 – Witten 0307041
- Duality walls – Gaiotto-Witten 0807.3720
- Duality anomaly – STY 1803.07366

## Chap 4: On gauge anomalies, equivariant localisation and SUSY

- Alvarez Gaume', "Supersymmetry and the Atiyah-Singer Index Theorem" CMP
- Cecotti-Girardello, "A SUPERSYMMETRY ANOMALY AND THE FERMIONIC STRING  
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- Notes on Equivariant Localization — Anton Alekseev
- TWO DIMENSIONAL GAUGE THEORIES REVISITED, Edward Witten
- "Exact Results for Wilson Loops in Superconformal Chern-Simons Theories with Matter", Anton Kapustin, Brian Willett, Itamar Yaakov