## 6th International Conference on New Frontiers in Physics (ICNFP2017)



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Type: Talk

## Beyond the phenomenology of the BCS model

Wednesday 23 August 2017 18:00 (30 minutes)

The BCS model is revisited and it is shown that the phenomenology predicted by it is much richer than it was thought before. I will show in realistic situations that the phase transition from the superconducting state to the normal (metal) state may be of the first order (the energy gap may have a jump at the phase transition), there may be two solutions for the energy gap equation, etc.

I show both, zero temperature [1] and finite temperature results [2].

[1] D. V. Anghel, arXiv:1609.07931.

[2] D. V. Anghel and G. A. Nemnes, Physica A 464, 74 (2016).

## **Topic:**

Topic: Quantum Physics, Quantum Optics and Quantum Information

## Summary

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