#### Asst. Prof. SONER ALBAYRAK

#### **Personal Information**

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#### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAJ-7377-2021

ScopusID: 57207315128 Yoksis Researcher ID: 218328

#### **Education Information**

Doctorate, Yale University, Graduate School of Science and Arts, Department of Physics, United States Of America 2016 - 2021

Postgraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 2014 - 2016 Undergraduate Double Major, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 2008 - 2014

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2008 - 2013

#### **Research Areas**

Theoretical High Energy Physics Studies

## Jury Memberships

Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, November, 2023

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. Momentum-space formulae for AdS correlators for diverse theories in diverse dimensions ALBAYRAK S., Kharel S., Wang X.
  - JOURNAL OF HIGH ENERGY PHYSICS, vol.2024, no.7, 2024 (SCI-Expanded)
- II. Perturbative unitarity and the wavefunction of the Universe
  - ALBAYRAK S., Benincasa P., Pueyo C. D.
  - SCIPOST PHYSICS, vol.16, no.6, 2024 (SCI-Expanded)
- III. All plus four point (A)dS graviton function using generalized on-shell recursion relation ALBAYRAK S., Kharel S.
  - JOURNAL OF HIGH ENERGY PHYSICS, vol.2023, no.5, 2023 (SCI-Expanded)
- IV. Bootstrapping<i>N<sub>f</sub></i>=4 conformal QED<sub>3</sub>
  ALBAYRAK S., Erramilli R. S., Li Z., Poland D., Xin Y.

PHYSICAL REVIEW D, vol.105, no.8, 2022 (SCI-Expanded)

## V. On duality of color and kinematics in (A)dS momentum space

ALBAYRAK S., Kharel S., Meltzer D.

JOURNAL OF HIGH ENERGY PHYSICS, no.3, 2021 (SCI-Expanded)

#### VI. Spinning loop amplitudes in anti-de Sitter space

ALBAYRAK S., Kharel S.

PHYSICAL REVIEW D, no.2, 2021 (SCI-Expanded)

## VII. Loop celestial amplitudes for gauge theory and gravity

ALBAYRAK S., Chowdhury C., Kharel S.

PHYSICAL REVIEW D, no.12, 2020 (SCI-Expanded)

### VIII. The inversion formula and 6j symbol for 3d fermions

ALBAYRAK S., Meltzer D., Poland D.

JOURNAL OF HIGH ENERGY PHYSICS, no.9, 2020 (SCI-Expanded)

## IX. Study of momentum space scalar amplitudes in AdS spacetime

ALBAYRAK S., Chowdhury C., Kharel S.

PHYSICAL REVIEW D, no.12, 2020 (SCI-Expanded)

# X. Towards the higher point holographic momentum space amplitudes. Part II. Gravitons

ALBAYRAK S., Kharel S.

JOURNAL OF HIGH ENERGY PHYSICS, no.12, 2019 (SCI-Expanded)

## XI. New relation for Witten diagrams

ALBAYRAK S., Chowdhury C., Kharel S.

JOURNAL OF HIGH ENERGY PHYSICS, no.10, 2019 (SCI-Expanded)

## XII. More analytic bootstrap: nonperturbative effects and fermions

ALBAYRAK S., Meltzer D., Poland D.

JOURNAL OF HIGH ENERGY PHYSICS, no.8, 2019 (SCI-Expanded)

#### XIII. Towards the higher point holographic momentum space amplitudes

ALBAYRAK S., Kharel S.

JOURNAL OF HIGH ENERGY PHYSICS, no.2, 2019 (SCI-Expanded)

#### **Metrics**

Publication: 13

Citation (WoS): 371 Citation (Scopus): 370 H-Index (WoS): 10 H-Index (Scopus): 10