SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13D

UNDER THE SECURITIES EXCHANGE ACT OF 1934 (Amendment No.)*

RIGETTI COMPUTING, INC.

(Name of Issuer)

Common Stock (Class of Securities)

76655K 103 (CUSIP Number)

Bessemer Venture Partners
1865 Palmer Avenue, Suite 104
Larchmont, NY 10528
(914) 833-5300
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

March 2, 2022 (Date of Event Which Requires Filing of Statement on Schedule 13D)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of $\S\S240.13d-1(e)$, 240.13d-1(g), checking the following box. \Box

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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(1)	Name of Reporting Persons:					
	Bessemer Venture Partners X Institutional L.P.					
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) □ (b) ⊠					
(3)	SEC Use O	nly:				
(4)	Source of Funds (See Instructions):					
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(5)	Check Box	if Disc	closure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e):			
(6)	Citizenship or Place of Organization:					
	Cayman Islands					
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(11)	Aggregate	Amoun	t Beneficially Owned by Each Reporting Person:			
	10,450,110 (1)					
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions):					
(13)	Percent of Class Represented by Amount in Row (11):					
	9.2% (1)					
(14)	Type of Reporting Person (See Instructions):					
	PN					

(1) The percent of class was calculated based on 113,810,285 shares of common stock, par value \$0.0001 per share ("**Common Stock**") issued and outstanding as of March 2, 2021, as disclosed in the Current Report on Form 8-K filed with the Securities and Exchange Commission by Rigetti Computing, Inc. on March 7, 2022.

(1)	Name of Reporting Persons:				
	Bessemer Venture Partners X L.P.				
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(1)	Name of Reporting Persons:					
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(13)	Percent of Class Represented by Amount in Row (11):					
(4.4)	19.0% (1)					
(14)	Type of Reporting Person (See Instructions):					
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ITEM 1. SECURITY AND ISSUER

This Schedule 13D relates to the Common Stock of the Issuer. The address of the principal executive offices of the Issuer is 775 Heinz Avenue, Berkeley, CA 94710.

ITEM 2. IDENTITY AND BACKGROUND

(a) This Schedule 13D is being filed by:

- (i) Bessemer Venture Partners X Institutional L.P. ("BVP X Inst"), a Cayman Islands exempted limited partnership;
- (ii) Bessemer Venture Partners X L.P ("**BVP X**" and together with BVP X Inst the "**BVP X Funds**"), a Cayman Islands exempted limited partnership;
- (iii) Deer X & Co. L.P., a Cayman Islands exempted limited partnership ("**Deer X LP**"), which is the general partner of each of the BVP X Funds: and
- (iv) Deer X & Co. Ltd., a Cayman Islands exempted company ("**Deer X Co,**" and collectively with the BVP X Funds and Deer X LP, the "**Reporting Persons**"), which is the general partner of Deer X LP.

Each of the Reporting Persons is principally engaged in the business of investing in securities. The business address and principal executive offices of each of the Reporting Persons is c/o Bessemer Venture Partners, 1865 Palmer Avenue, Suite 104, Larchmont, NY 10538.

The Shares to which this Schedule 13D relates are owned directly by the applicable BVP X Funds.

During the five years prior to the date hereof, none of the Reporting Persons has been convicted in a criminal proceeding or has been a party to a civil proceeding ending in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION

The information set forth or incorporated by reference in Items 4 and 6 of this Statement is incorporated by reference into this Item 3.

As described in Item 4 of this Statement, the securities reported on this Statement reflect the consummation of the Business Combination (as defined below) contemplated by the Merger Agreement (as defined below) and the transactions consummated in connection therewith.

ITEM 4. PURPOSE OF TRANSACTION

On March 2, 2022 (the "Closing Date"), the parties to the certain Agreement and Plan of Merger, dated as of October 6, 2021 (as amended on December 23, 2021 and January 10, 2022, the "Merger Agreement"), by and among Supernova Partners Acquisition Company II, Ltd. ("Supernova"), Supernova Merger Sub, Inc., a Delaware corporation and a direct wholly owned subsidiary of Supernova ("First Merger Sub"), Supernova Romeo Merger Sub, LLC, a Delaware limited liability company and a direct wholly owned subsidiary of Supernova ("Second Merger Sub") and Rigetti Holdings, Inc., a Delaware corporation ("Legacy Rigetti") consummated the merger transactions contemplated by the Merger Agreement, whereby (i) First Merger Sub merged with and into Legacy Rigetti, the separate corporate existence of First Merger Sub ceasing and Legacy Rigetti being the surviving corporation (the "Surviving Corporation" and, such merger, the "First Merger") and (ii) immediately following the First Merger, the Surviving Corporation merged with and into the Second Merger Sub (after giving effect to the Domestication (as defined in the Merger Agreement), with the separate corporate existence of the Surviving Corporation ceasing and the Second Merger Sub being the surviving entity and changing its name to "Rigetti Intermediate LLC" (such merger transaction together with the First Merger, the Domestication and other transaction contemplated by the Merger Agreement, including the PIPE Financing (as defined below), the "Business Combination").

Prior to the effective time of the First Merger, each share of Legacy Rigetti's Series C preferred stock and Series C-1 preferred stock (collectively, the "Legacy Rigetti Preferred Stock"), converted into shares of common stock of Legacy Rigetti ("Legacy Rigetti Common Stock") in accordance with the Amended and Restated Certificate of Incorporation of Legacy Rigetti (such conversion, the "Legacy Rigetti Preferred Conversion").

As a result of the First Merger, among other things, (1) all outstanding shares of Legacy Rigetti Common Stock as of immediately prior to the Closing (including Legacy Rigetti Common Stock resulting from the Legacy Rigetti Preferred Stock Conversion), were exchanged at an exchange ratio of 0.786989052873439 (the "Exchange Ratio") for an aggregate of 78,959,579 shares of New Rigetti Common Stock, (2) each warrant to purchase Legacy Rigetti Common Stock converted into a warrant to purchase shares of New Rigetti Common Stock ("New Rigetti Assumed Warrant"), with each New Rigetti Assumed Warrant subject to the same terms and conditions as were applicable to the original Legacy Rigetti warrant and having an exercise price and number of shares of New Rigetti Common Stock purchasable based on the Exchange Ratio and other terms contained in the Merger Agreement, (3) each option to purchase Legacy Rigetti Assumed Option Stock converted into an option to purchase shares of New Rigetti Common Stock ("New Rigetti Assumed Option"), with each New Rigetti Assumed Option subject to the same terms and conditions as were applicable to the original Legacy Rigetti option and with an exercise price and number of shares of New Rigetti Common Stock purchasable based on the Exchange Ratio and other terms contained in the Merger Agreement and (4) each Legacy Rigetti restricted stock unit award converted into a restricted stock unit award to receive shares of New Rigetti Common Stock ("New Rigetti Assumed RSU Award"), with each New Rigetti Assumed RSU Award subject to the same terms and conditions as were applicable to the original Legacy Rigetti restricted stock unit award, and with the number of shares of New Rigetti Common Stock to which the New Rigetti Assumed RSU Award based on the Exchange Ratio and other terms contained in the Merger Agreement.

Concurrently with the execution of the Merger Agreement, Supernova entered into Subscription Agreements (the "Initial Subscription Agreements") with certain investors, including the BVP X Funds, (together, the "Initial PIPE Investors"), pursuant to which the Initial PIPE Investors agreed to subscribe for and purchase, and Supernova agreed to issue and sell to the Initial PIPE Investors, an aggregate of 10,251,000 shares of New Rigetti Common Stock at a price of \$10.00 per share, for aggregate gross proceeds of \$102,510,000 (the "Initial PIPE Financing"). On December 23, 2021, Supernova entered into Subscription Agreements (the "Subsequent Subscription Agreements", and together with the Initial Subscription Agreements, the "Subscription Agreements") with two "accredited investors" (as such term is defined in Rule 501 of Regulation D) (the "Subsequent PIPE Investors", and together with the Initial PIPE Investors, the "PIPE Investors") pursuant to which the Subsequent PIPE Investors agreed to subscribe for and purchase, and Supernova agreed to issue and sell to the Subsequent PIPE Investors, an aggregate of 4,390,244 shares of New Rigetti Common Stock at a price of \$10.25 per share, for aggregate gross proceeds of \$45,000,000 (the "Subsequent PIPE Financing", and together with the Initial PIPE Financing"). Pursuant to the Subscription Agreements, New Rigetti agreed to provide the PIPE Investors with certain registration rights with respect to the shares purchased as part of the PIPE Financing.

The Reporting Person acquired an aggregate of 21,582,218 shares of Common Stock of the Issuer in connection with the Business Combination and the PIPE Financing (the "Shares").

As may be appropriate from time to time, each of the Reporting Persons may consider the feasibility and advisability of various alternative courses of action with respect to such investment, including, without limitation: (a) the acquisition or disposition by the Reporting Persons of shares of the Issuer's Common Stock, including through derivative transactions which may include security-based swaps and short sales; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries; (d) changes in the present capitalization or dividend policy of the Issuer; (f) other material changes in the Issuer's business or corporate structure; (g) changes in the Issuer's articles of association or other governing documents or other actions that may impede the acquisition of control of the Issuer by any person; (h) causing any class of the Issuer's securities to be delisted from a national securities exchange or to cease to be authorized to be quoted in an interdealer quotation system of a registered national securities association; (i) causing a class of equity securities of the Issuer to become eligible for termination of registration pursuant to

Section 12 of the Exchange Act; or (j) any action similar to those enumerated above. The Reporting Persons may communicate with the Board, members of management and/or other stockholders from time to time with respect to operational, strategic, financial or governance matters or otherwise work with management and the Board. Except as described in Item 6 and this Item 4 and any plans or proposals that may from time to time be discussed or considered by the directors of the Issuer, including Mr. David Cowan, a director of Deer X Co., in his fiduciary capacity as a director of the Issuer, the Reporting Persons do not currently have any plans or proposals that relate to or would result in any of the actions specified in clause (a) through (j) of this paragraph.

The Reporting Persons reserve the right, based on all relevant factors and subject to applicable law or other restrictions, at any time and from time to time, to acquire additional securities of the Issuer, dispose of some or all of the Issuer's Common Stock or such other securities, in each case in open market or private transactions, block sales, distributions or otherwise, and review or reconsider their position, change their purpose, take other actions (including actions that could involve one or more of the types of transactions or have one or more of the results described in clauses (a) through (j) of the foregoing paragraph of this Item 4) or formulate and implement plans or proposals with respect to any of the foregoing.

The Reporting Persons intend to review their investment in the Issuer from time to time on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's securities in particular, as well as other developments.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER

(a) As of March 2, 2022, BVP X Inst had sole voting and dispositive power with respect to 10,450,110 shares of Common Stock of the Issuer, constituting approximately 9.2% of the Issuer's Common Stock.

As of March 2, 2022, BVP X had sole voting and dispositive power with respect to 11,132,108 shares of Common Stock of the Issuer, constituting approximately 9.8% of the Issuer's Common Stock.

As of March 2, 2022, Deer X LP, as the general partner of each of the BVP X Funds may be deemed to have sole voting and dispositive power with respect to all 21,582,218 shares of Common Stock of the Issuer owned by the BVP X Funds, constituting approximately 19.0% of the Issuer's Common Stock.

As of March 2, 2022, Deer X Co, as the general partner of Deer X LP may be deemed to have sole voting and dispositive power with respect to all 21,582,218 shares of Common Stock of the Issuer owned by the BVP X Funds, constituting approximately 19.0% of the Issuer's Common Stock.

The percent of class was calculated based on 113,810,285 shares of Common Stock issued and outstanding as of March 2, 2021, as disclosed in the Current Report on Form 8-K filed with the Securities and Exchange Commission by the Issuer on March 7, 2022.

(b)

Regarding the number of shares as to which such person has:

- (i) sole power to vote or to direct the vote: See line 7 of cover sheets
- (ii) shared power to vote or to direct the vote: See line 8 of cover sheets
- (iii) sole power to dispose or to direct the disposition: See line 9 of cover sheets.
- (iv) shared power to dispose or to direct the disposition: See line 10 of cover sheets
- (c) The information contained in Item 3 to this Schedule 13D is incorporated in its entirety into this Item 5(c). Except as disclosed in Item 3, no Reporting Person has effected any transaction in the Issuer's Common Stock during the past 60 days.

- (d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, shares of the Issuer's Common Stock beneficially owned by any of the Reporting Persons.
- (e) Not applicable

ITEM 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER

The information provided and incorporated by reference in Items 3, 4 and 5 is hereby incorporated by reference.

Registration Rights Agreement

The BVP X Funds are a party to an Amended and Restated Registration Rights Agreement, dated March 2, 2022, between the Issuer and certain of its stockholders (the "**Registration Rights Agreement**"). Under the terms of the Registration Rights Agreement, each of the BVP X Funds has customary registration rights with respect to any Registrable Securities (as defined in the Registration Rights Agreement) that it may hold from time to time, including shelf registration rights, underwritten offering rights and piggyback registration rights, in each case, subject to certain customary limitations.

The foregoing description of each of the Registration Rights Agreement is not complete and is qualified in its entirety by reference to the full text of the Registration Rights Agreement, which is incorporated by reference into this Schedule 13D pursuant to Exhibit 99.2 of Item 7 hereof.

Lock-Up Provisions

Under the Amended and Restated Bylaws (the "Bylaws") of the Issuers, holders of shares of Common Stock issued as part of the merger consideration are subject to lock-up restrictions beginning on Closing Date and ending on the date that is the earlier of (i) six months after the Closing Date, (ii) the date on which the closing price of the Common Stock equals or exceeds \$12.00 per share for any 20 trading days within any 30-trading day period commencing at least 90 days following the Closing Date and (iii) the date on which the Issuer consummates a sale, merger, liquidation, exchange offer or other similar transaction after the Closing Date that results in stockholders having beneficial ownership of less than 50% of the outstanding voting securities of the combined company which results in its stockholders having the right to exchange their shares for cash, securities or other property having a value that equals or exceeds \$12.00 per share.

The foregoing description of each of the Bylaws is not complete and is qualified in its entirety by reference to the full text of the Bylaws, which is incorporated by reference into this Schedule 13D pursuant to Exhibit 99.3 of Item 7 hereof.

Except for the Registration Rights Agreement and the Bylaws, or as otherwise set forth in this Schedule 13D, to the knowledge of the Reporting Persons, there are no contracts, arrangements, understandings or relationships among the persons named in Item 2 or between such persons and any other person with respect to any Shares.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS

- Exhibit 99.1 Agreement regarding filing of joint Schedule 13D.
- Exhibit 99.2 Amended and Restated Registration Rights Agreement, dated March 2, 2022, by and among New Rigetti, the Sponsor and the other holders party thereto. (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed by Issuer with the SEC on March 7, 2022).
- Exhibit 99.3 Bylaws of Rigetti Computing, Inc. (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K filed by Issuer with the SEC on March 7, 2022).

SIGNATURE

After reasonable inquiry and to the best of his knowledge and belief, the undersigned certifies that the information set forth in this Statement is true, complete and correct.

Dated: March 14, 2022

BESSEMER VENTURE PARTNERS X L.P. BESSEMER VENTURE PARTNERS X INSTITUTIONAL L.P.

By: Deer X & Co. L.P., their General Partner

By: Deer X & Co. Ltd., its General Partner

By: /s/ Scott Ring

Scott Ring, General Counsel

DEER X & CO. L.P.

By: Deer X & Co. Ltd., its General Partner

By: /s/ Scott Ring

Scott Ring, General Counsel

DEER X & CO. LTD.

By: /s/ Scott Ring

Scott Ring, General Counsel

Notice Address:

c/o Bessemer Venture Partners 1865 Palmer Avenue Suite 104 Larchmont, NY 10538 Tel. 914-833-5300

JOINT FILING AGREEMENT

The undersigned acknowledge and agree that the foregoing statement on Schedule 13D is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13D shall be filed on behalf of each of the undersigned without the necessity of filing additional joint filing statements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him, her or it contained herein, but shall not be responsible for the completeness and accuracy of the information concerning the other entities or persons, except to the extent that he, she or it knows or has reason to believe that such information is inaccurate.

Dated: March 14, 2022

BESSEMER VENTURE PARTNERS X L.P. BESSEMER VENTURE PARTNERS X INSTITUTIONAL L.P.

By: Deer X & Co. L.P., their General Partner

By: Deer X & Co. Ltd., its General Partner

By: /s/ Scott Ring

Scott Ring, General Counsel

DEER X & CO. L.P.

By: Deer X & Co. Ltd., its General Partner

By: /s/ Scott Ring

Scott Ring, General Counsel

DEER X & CO. LTD.

By: /s/ Scott Ring

Scott Ring, General Counsel